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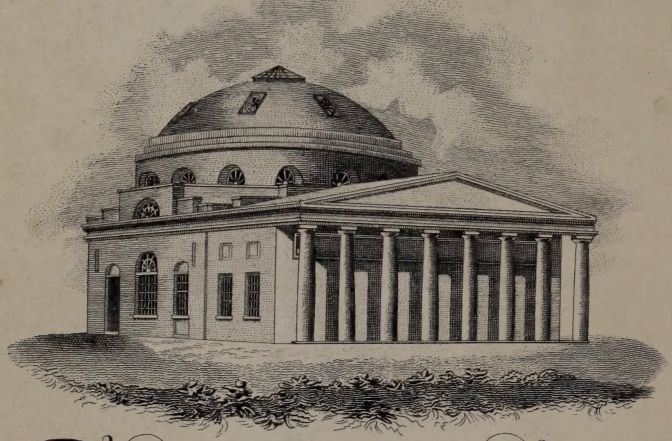

University of Maryland

THE WORKS OF THOMAS SYDENHAM, M. D.

ON

ACUTE AND CHRONIC DISEASES;

WHEREIN THEIR

HISTORIES AND MODES OF CURE,

AS RECITED BY HIM, ARE DELIVERED

WITH ACCURACY AND PERSPICUITY.

TO WHICH ARE SUBJOINED

NOTES,

CORRECTIVE AND EXPLANATORY,

FROM THE MOST EMINENT MEDICAL WRITERS;

ADAPTING THE WHOLE TO THE PRESENT IMPROVED STATE OF PHYSIC,

AND SHEWING UNDER WHAT

CLASSES, ORDERS, AND GENERA,

MOST OF THE COMPLAINTS TREATED OF ARE ARRANGED BY

NOSOLOGISTS:

WITH A VARIETY OF ANNOTATIONS BY

GEORGE WALLIS, M. D.

IN TWO VOLUMES.

VOL. I.

Naturæ servus fuit sapientissimus——

——Cui, pudor, & justitiæ soror
Incorrupta fides, nudaque veritas
Quando ullum invenient parem?——

HOR. CARM. XXVI.

LONDON:

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TO

LORD THURLOW,

LORD HIGH CHANCELLOR OF

ENGLAND.

VARIOUS are the unpleaſing motives, my Lord! which give birth to dedications. Some authors, little in themſelves, love to creep beneath the wings of diſtinguiſhed characters to ſteal a conſequence, or impoſe upon the world a belief that they move in habits of intimacy, or are honoured with the ſmiles of greatneſs.—Some, confiding in the weakneſs of their patrons, approach them in the dreſs of fulſome adulation, and, ſecure in their vanity, labour to ſwell out trivial qualifications into eminent abilities, and ſo to emblazon private virtues, that their real exiſtence becomes diſputable,

almoſt extinguiſhed, as it were, by the falſe glare of hyperbolical extravagance;—ſome bend the ſycophantiſh knee to epiſcopal dignity, and boldly publiſh to the world, what religious perfection wiſhes to lie hid, under the veil of that humility by which ſhe is ſo characteriſtically diſtinguiſhable; nay, my Lord! even aſk leave to commit theſe offences, and what is more extraordinary, are ſucceſsful in their applications.

It will not be conſidered as an offence in me, I hope, to confeſs, that ſuch requeſts I think derogatory to the character of a man, and ought to be diſguſtful to a patron;—that Nature has not formed me of ſuch pliant materials as to ſtoop to flatter a man, *merely* becauſe he is ennobled, or elevated amongſt the higher orders of the world; or that I lack *that* ſomething more than modeſt confidence to petition my patron to conſent, for my own ſake, to load him with falſe or exaggerated praiſe, and render him an object for the ſhaft of ſatiric wit—'tis not in me by any of theſe incentives to be moved;—unknown to your Lordſhip, I cannot be ſtimulated by intereſted views;—ſtruck with the power of public virtue, by that alone is my pen perſuaded to pay its juſt tribute; nor ſhould I have here thought of affixing your Lordſhip's name, was I not warranted,

ranted by the apparent ſimilarity of character which exiſts, at leaſt in the grand outlines, between yourſelf and SYDENHAM.—Men, who float ſuperficially on the tide of things, the injudicious and prejudiced, may be aſtoniſhed at the compariſon, and fools, becoming boiſterous at truths they cannot trace, conſider it as an indignity;—but let them reflect, that a Phyſician poſſeſſed of ſagacity, prudence, judgement, and integrity, adequate to a SYDENHAM, is one of the firſt characters in the world—*Proximus eſt Deo*—for he can relieve the miſery of a monarch, and oftentimes ſnatch him from impending fate; when all the wealth with which he is loaded, all the honour and power with which royalty is ſurrounded, cannot even mitigate the ſeverity of a ſingle pang. He, in this moment at leaſt, my Lord! is greater than a king. —Forcible however as is this argument, it cannot work miracles, it cannot clear away the miſt from the eyes of folly; I therefore to the rational and candid only make my appeal.

In that period of time, when the medic art was built upon the tottering baſis of hypotheſis, and ſupported by the enthuſiaſtic zeal of whim and bigotry; when their adherents, turning tyrants to nature, attempted to torture her to their purpoſes,

and would not condeſcend to purſue the paths ſhe pointed out, when they endeavoured to bind in their trammels, and drive her obedient to their wiſhes; as if they thought it beneath their conſequence to ſtoop to the dictates of heaven's firſt agent; who, proud in opinion, ſlew numbers by the rules of art, gaining applauſe from thoſe only, who eſcaped by the laws of chance—In that period aroſe SYDENHAM, whoſe natural ſagacity led him to detect error; whoſe love of mankind made him exert a courage to correct it; and who, amidſt the oppoſition of hypothetic tyranny, ſupported his poſitions, and overturned, by ſimple obſervation and experience, the long-laboured and ſuppoſitious reaſoning of the whole dogmatic phalanx—He, my Lord! made truth his principle, and philanthropy his motive;—improvement in medicine was the reſult of his attention; true knowledge the delight of his ſoul, the purport of his purſuit; conſcious of the rectitude of his principles, though *he* ſhrunk at the arrows of defamation, perſeverance was his virtue; and, amidſt the taunts of calumny and ſarcaſtic jeers of envy, he ſtill became a conqueror.

Your Lordſhip arrived at that acme, only juſt not poſſeſſed of royalty, has made truth the principle

ciple of *your* purſuit;—where ſophiſtry has attempted to cloath fallacy in the garb of facts, your Lordſhip has had penetration to diſcover the deception;—where precedents have outlived their uſe, perception to ſee the futility of acting in conformity to them, and fortitude to make alterations adapted to the nature of the exigencies, amidſt the ſubtile efforts of blind timidity, and clamour of unenlightened inſolence.—Where men, aggrandized by birth or the partiality of power only, have arrogated to themſelves an empty ſuperiority, you have convinced the world, that common cuſtom, though ſhe deals out ſtars and coronets, muſt give place to common ſenſe; and that integrity and ability were preferable to the external ornaments of high birth and ſupercilious preſumption;—in fine, truth being your only beacon, you have had the laudable boldneſs to ſupport her amidſt the artifice of ſelf-intereſt and war of political violence; and, my Lord! conqueſt has been your reward . . . It is on theſe conſiderations that I have been induced to draw the parallel—It was from ſources ſimilar to theſe that Fame ſhed her brighteſt honours round the head of a SYDENHAM, and wafted him, thus adorned, in all their glow to poſterity.—Thus will it fare with every character bleſſed with ſuperior abilities; who, making truth the object of their inquiries, labour to

eſtabliſh the welfare of mankind on ſo indiſſoluble a baſis;—from hence will they be handed down an ornament and an honour to ſociety, whoſe names by her will only be ſurvived;—for TRUTH *muſt live*, my Lord! in all her priſtine vigour, "amidſt the wreck of matter, and the cruſh of "worlds."

It is from the preceding reflections that I have been induced to dedicate theſe my labours to your Lordſhip;—which, ſhould they meet your eye, and be conſtrued into offence, becauſe I have unpermitted taken ſuch a liberty, I ſhall be ſorry;—but muſt leave the motive to plead my apology, convinced, it muſt be allowed, that the heart which means no ill, can do no wrong.

I have the honour to ſubſcribe myſelf, my Lord! with all due deference,

Your LORDSHIP'S

moſt obedient ſervant,

GEO. WALLIS.

South Molton Street,
Groſvenor Square,
Oct. 18, 1788.

THE

PREFACE.

ON the republication of the works of our favourite author, SYDENHAM, little will be neceſſary to be advanced, reſpecting the utility; for they have paſt the ordeal trial, and ſtood, unſhaken, the teſt of time, notwithſtanding the various doctrines which have crowded into the medical ſchools, and dropt into oblivion ſince their firſt appearance. His writings were the reſult of obſervation, and his labours founded on experience; and though he has wandered now and then in the field of ſpeculation, his guide has been ſimple facts, contending to ſupport certain poſitions à poſteriori by plain reaſoning, rather than attempting to prove à priori what would be the reſult of ſome imaginary principles; hence, though his arguments may be fallacious, his concluſions cannot be miſchievous; becauſe he firſt enumerates the ſymptoms of the diſeaſe as they appear, then watches the progreſs, and points out the different modes which have been ſucceſsful in the different periods. And thus he forms the baſis of his practice, exerciſing his reaſoning powers in accounting for the mode in which Nature performs the proceſs; or making probable conjectures at the offending cauſe, how it originates

and

and proceeds, adhering rigidly ſtill to the methods of which experiment has proved the propriety. . . . . Indeed, ſo convinced have later times been of the validity and accuracy of his deſcriptions, that they are conſidered as the unrivalled delineations of Nature;—ſo univerſally have they been eſteemed for their exactitude and truth, that poets never made freer uſe of, or ſtole more from HOMER, PINDAR, or VIRGIL; ſatyriſts from JUVENAL, PERSIUS, or HORACE; orators from DEMOSTHENES, QUINTILIAN, or CICERO; nor dramatiſts from a SHAKESPEARE, than phyſicians have from a SYDENHAM. But as men of the higheſt abilities, extenſive knowledge, and indefatigable aſſiduity have not thought it unworthy of them to devote their time ſolely to the inveſtigation of medical ſubjects; as a HOFFMAN, a BOERHAAVE, a GAUBIUS, SAUVAGES, and a CULLEN, have written elaborately and perſpicuouſly on medicine, have ſucceſsfully endeavoured to render things which were formerly moſt complex, now the moſt ſimple; and in a great meaſure to diveſt the art of all that load of lumber under which it lay ſtruggling; and as many others of an inferior order have added, though leſs copiouſly, not leſs elegantly, many improvements, it has been thought neceſſary to add ſuch as properly belong to this work in this edition, in order to render it as valuable as the preſent improved ſtate of phyſic will permit.—Nor has the Editor been ſparing of his labour in ſearching into the various periodic publications, which enrich the medical repoſitories, and do honour to the age, and making uſe of ſuch materials as appeared

peared to him, well adapted to his ſubject, when they were totally freed from the miraculous and marvellous, and ſeemed not to wanton too much in credulity;—happy in affixing names of conſequence to opinions he thought his own, wherever he found them ſupported by ſuch characters as were eminently diſtinguiſhed in the medical hemiſphere; or, in fine, however trifling the individual in the great ſcale, where truth was obviouſly the foundation—well aware, that a greater deference, and more fixed attention, would be juſtly paid to thoſe opinions thus ſtrongly eſtabliſhed, than to any which he, launching into public notice, might advance on his ſingle authority.

With reſpect to the Tranſlation, the preſent Editor has done little more than compared that of Dr. SWAN with the original; and where he has found any errors, which indeed are too few even to mention, he has endeavoured to alter them.—For the Doctor has given, in general, the full ſenſe of the original; and though the language might be here and there meliorated, in juſtice to his labours it has been thought better to be guilty of this unimportant omiſſion, than conſidered hypercritical.——But with regard to his Notes, however applicable they might have been at the time in which he wrote, ſtill the multifarious improvements which have occurred ſince that period, the more certain theory which has been eſtabliſhed, have rendered it neceſſary to reſcind the greateſt part of them; only letting ſuch, or a part, ſtand, as ſeemed to be conſiſtent with the rational practice of this day. Whatever liberties

of

of this kind have been taken, originated not from a desire of altering or rejecting, but of improving. How far, or how judiciously this has been executed, must be left to the determination of public opinion; and whatever may be the fate of the present performance, though it should fail of meeting with that applause, which the motive at least may merit, it will prove, that the annotator has not been an indolent steward—*Talentum, quantulumcunque, non sepelivit*—but has acted in strict conformity to his duty as a physician and philanthropist.

QUIA, *nostrum est laudatissimam*, PUTAT, *quam* SYDENHAMUS *calcavit viam, omni curâ prosequi: illudque quod ipsi defuit, nostra industria supplere, augere, variisque inventis locupletare, & hac ratione ad majorem perfectionem, quoad theoriam, & exercitationem artem perducere.*

THE

THE LIFE OF

DR. SYDENHAM.

THOMAS SYDENHAM was born in the year 1634, at Windford Eagle in Dorſetſhire, where his father, William Sydenham, Eſq. had a large fortune;—under whoſe care he was educated, or in what manner he paſſed his childhood; whether he made any early diſcoveries of a genius peculiarly adapted to the ſtudy of nature, or gave any preſage of his future eminence in medicine, no information is to be obtained. We muſt, therefore, repreſs that curioſity which would naturally incline us to watch the firſt attempts of ſo vigorous a mind, to purſue it in its childiſh inquiries, and ſee it ſtruggling with ruſtic prejudices, breaking on trifling occaſions the ſhackles of credulity, and giving proofs in its caſual excurſions, that it was formed to ſhake off the yoke of preſcription, and diſpel the phantoms of hypotheſis.

That the ſtrength of SYDENHAM's underſtanding, the accuracy of his diſcernment and ardour of his curioſity might have been remarked from his infancy by a diligent obſerver, there is no reaſon to doubt. *For there is no inſtance of a man whoſe hiſtory* * has been minutely

* *For there is no inſtance of a man whoſe hiſtory, &c.* This aſſertion ſeems to be infinitely too latitudinous; for hiſtory, as well as common obſervation, will furniſh innumerable inſtances of men, who have in the middle and latter periods of life been diſtinguiſhed by their eminent abilities, that in the earlier ſtages have given no great proof

nutely related, that did not in every part of life diſcover the ſame proportion of intellectual vigour; but it has been the lot of the greateſt part of thoſe who have excelled in ſcience, to be known only by their own writings, and to have left behind them no remembrance of their domeſtic life or private tranſactions, or only ſuch memorials of particular paſſages as are, on certain occaſions, neceſſarily recorded in public regiſters.

From theſe it is diſcovered that at the age of eighteen, in 1642, he commenced a commoner of Magdalen Hall in Oxford, where it is not probable that he continued long; he informs us himſelf, that he was withheld from the univerſity by the commencement of the war; nor is it known in what ſtate of life he engaged, or where he reſided, during that long ſeries of public commotion. It is indeed reported, that he had a commiſſion in the King's army, but no particular account is given of his military conduct; nor are we told what rank he obtained, when he entered into the army, or when, or on what occaſion he retired from it.

It is, however, certain, that if ever he took upon him the profeſſion of arms, he ſpent but few years in the camp; for in 1648, he obtained at Oxford the degree of bachelor of phyſic, for which, as ſome medicinal knowledge is neceſſary, it may be imagined that he ſpent ſome time in qualifying himſelf.

His application to the ſtudy of phyſic was, as he himſelf relates, produced by an accidental acquaintance

proof of intellectual vigour. SWIFT manifeſted no ſigns in his juvenile years of that ſtrength of underſtanding for which he was afterwards ſo univerſally extolled; for we find, from Lord Orrery's account, that he was admitted to his firſt degree in the ſeminaries of learning "*ſpeciali gratiâ*," through particular indulgence. It is, however, of no conſequence; it adds no ray of honour to the character of a man to be bleſſed with the rich gifts of nature; the *proper* cultivation and application of ſuch abilities are what alone merit the voice of fame, which ſo liberally and ſo juſtly has been beſtowed on SYDENHAM. *W.*

with

with Dr. Cox, a phyſician eminent at that time in London, who in ſome ſickneſs preſcribed to his brother, and attending him frequently on that occaſion, inquired of him what profeſſion he intended to follow; the young man telling him that he was undetermined, the doctor recommended phyſic to him, on what account, or with what arguments, it is not related; but his perſuaſions were ſo effectual, that SYDENHAM determined to follow his advice, and retired to Oxford for leiſure and opportunity to purſue his ſtudies.

It is evident that this converſation muſt have happened before his promotion to any degree in phyſic, becauſe he himſelf fixes it in the interval of his abſence from the univerſity, a circumſtance which will enable us to confute many falſe reports relating to Dr. SYDENHAM, which have been confidently inculcated, and implicitly believed.

It is the general opinion, that he was made a phyſician by accident and neceſſity, and Sir Richard Blackmore reports in plain terms, that he engaged in practice without any preparatory ſtudy, or previous knowledge, of the medical ſciences; and affirms, that when he was conſulted by him what books he ſhould read to qualify him for the ſame profeſſion, he recommended Don Quixote.

That he recommended Don Quixote * to Blackmore, we are not allowed to doubt; but the relater is hindered

* *He recommended Don Quixote, &c.* There cannot be the leaſt ſhadow of doubt, but SYDENHAM thought Dr. BLACKMORE more calculated for Quixotical enterprizes, than the ſerious, indefatigable purſuits of medical ſubjects, and therefore wittily gave him this advice, doubtleſs for the beſt purpoſe. Sir Richard Blackmore's report of ſuch a circumſtance, given as a proof of SYDENHAM's neglect of preparatory ſtudy, or previous knowledge in thoſe branches neceſſary for the cultivation of this art, betrays more malevolence than candour; and ſhews in no ſlight degree, his own want of ſagacity; ſilence on this ſubject would have afforded a proof of much more ſound policy. *W.*

† Preface to Dr. Blackmore's Treatiſe on the Small Pox.

by

by that self-love, which dazzles all mankind, from discovering that he might intend a satire very different from a general censure of all the ancient and modern writers on medicine, since he might perhaps mean either seriously or in jest, to insinuate, that Blackmore was not adapted by nature to the study of physic, and that, whether he should read Cervantes or Hippocrates, he would be equally unqualified for practice, and equally unsuccessful in it.

Whatsoever was his meaning, nothing is more evident than that it was a transient sally of an inclination warmed with gaiety, or the negligent effusion of a mind intent on some other employment, and in haste to dismiss a troublesome intruder; for it is certain that SYDENHAM did not think it impossible to write usefully on medicine, because he has himself written upon it; and it is not probable that he carried his vanity so far, as to imagine that no man had ever acquired the same qualifications besides himself. He could not but know that he rather restored than invented most of his principles, and therefore could not but acknowledge the value of those writers whose doctrine he adopted and enforced.

That he engaged in the practice of physic without any acquaintance with the theory, or knowledge of the opinions or precepts of former writers, is undoubtedly false; for he declares, that after he had, in pursuance of his conversation with Dr. *Cox*, determined upon the profession of physic, he *applied himself in earnest to it, and spent several years in the university*, aliquot annos in academicâ palæstrâ, before he began to practise in London.

Nor was he satisfied with the opportunities of knowledge which *Oxford* afforded, but travelled to *Montpelier*, as *Default* relates,* in quest of farther information; *Montpelier* being at that time the most celebrated school

* Dissertation on Consumption.

Mont-

of phyſic: *ſo far was SYDENHAM** from any contempt of academical inſtitutions, and ſo far from thinking it reaſonable to learn phyſic by experiments alone, which muſt neceſſarily be made at the hazard of life.

What can be demanded beyond this by the moſt zealous advocate for regular education? What can be expected from the moſt cautious and induſtrious ſtudent, than that he ſhould dedicate ſeveral years to the rudiments of his art, and travel for further inſtructions from one univerſity to another?

It is likewiſe a common opinion, *that Sydenham was thirty years old*† before he formed his reſolution of ſtudying phyſic, for which I can diſcover no other foundation than one expreſſion in his dedication to Dr. *Mapletoft*, which ſeems to have given riſe to it by a groſs miſin-

* *So far was SYDENHAM, &c.* Ridiculous as this accuſation againſt SYDENHAM muſt appear, and abſurd as is the adoption of any ſimilar idea, yet there are not wanting practitioners who affect to deſpiſe all ſtudy, and reprobate theory, boaſting that they depend on experience alone for directing their medical conduct.

It is to be feared, that notions like theſe deduce their origin rather from ignorance and vanity, than cool reflection or ſound judgement: that the word experience from their mouths is a flagrant proſtitution of the term; for how can men reap any advantage from experiments, or how be enabled to purſue or underſtand the documents from thence to be collected, without being well verſed in the fundamental principles of the art to which they belong? What is the intent of ſtudy, but to acquire a thorough knowledge of ſuch principles, and from thence form a rational theory? It may not unfairly be preſumed for ſuch a theory they miſtake hypotheſis, and labour more to juſtify their proceedings, by impoſing on credulity, than from knowledge derived from practical obſervation. *W.*

† *That Sydenham was thirty years old, &c.* At what period he commenced his ſtudies matters not; his works are a ſufficient proof that he was at leaſt one of the moſt ſhining characters in the healing art, from whence poſterity have, and will continue to reap, more emolument than from all the united labours of thoſe who wiſh rather to load him with calumny than praiſe: but it is the fault of biographers, in reciting anecdotes of their favourites, to be ridiculouſly eulogiſtical—an error pardonable only from the goodneſs of its motive. *W.*

terpretation; for he only obſerves, that from his converſation with Dr. Cox to the publication of that treatiſe *thirty years* had intervened.

Whatever may have produced this notion, or how long ſoever it may have prevailed, it is now proved beyond controverſy to be falſe, ſince it appears that SYDENHAM having been for ſome time abſent from the univerſity, returned to it in order to purſue his phyſical inquiries before he was twenty-four years old, for, in 1648, he was admitted to the degree of bachelor of phyſic.

That ſuch reports ſhould be confidently ſpread, even among the contemporaries of the author to whom they relate, and obtain in a few years ſuch credit as to require a regular confutation; that it ſhould be imagined that the greateſt phyſician of the age arrived at ſo high a degree of ſkill, without any aſſiſtance from his predeceſſors; and that a man, eminent for integrity, practiſed medicine by chance, and grew wiſe only by murder, is not to be conſidered without aſtoniſhment.

But if it be on the other part remembered, how much this opinion favours the lazineſs of ſome, and the pride of others; how readily ſome men confide in natural ſagacity, and how willingly moſt would ſpare themſelves the labour of accurate reading and tedious inquiry, it will be eaſily diſcovered how much the intereſt of multitudes was engaged in the production and continuance of this opinion, and how cheaply thoſe of whom it was known that they practiſed phyſic before they ſtudied it, might ſatisfy themſelves and others with the example of the illuſtrious SYDENHAM.

It is therefore in an uncommon degree uſeful to publiſh a true account of this memorable man, that pride, temerity, and idleneſs may be deprived of that patronage which they have enjoyed too long; that life may be ſecured from the dangerous experiments of the ignorant and preſumptuous; and that thoſe who ſhall here-

hereafter assume the important province of superintending the health of others, may learn from this great master of the art, that the only means of arriving at eminence and success are labour and study.

About the same time that he became a bachelor of physic, he obtained, by the interest of a relation, a fellowship of All Souls college, having submitted to the subscription required to the authority of the visitors appointed by the parliament, upon what principles, or how consistently with his former conduct, it is now impossible to discover.

When he thought himself qualified for practice, he fixed his residence in Westminster, became doctor of physic at Cambridge, received a licence from the college of physicians, and lived in the first degree of reputation and the greatest affluence of practice for many years, without any other enemies than those which he raised by the superior merit of his conduct, the brighter lustre of his abilities, or his improvements of his science, and his contempt of pernicious methods, supported only by authority, in opposition to sound reason and indubitable experience. These men are indebted to him for concealing their names, when he records their malice, since they have thereby escaped the contempt and detestation of posterity.

The same attention to the benefit of mankind which animated him in the pursuit of a more salutary practice of medicine, may be supposed to have incited him to declare the result of his inquiries, and communicate those methods of which his sagacity had first conjectured, his experience afterwards confirmed the success; he therefore drew up those writings, which have been from his time the chief guides of physic; and that they might be useful to a great extent, procured them to be put into Latin, partly by Dr. Mapletoft, to whom part is dedicated, and partly by Mr. Havers of Cambridge.

It is a melancholy reflection, that they who have obtained the higheſt reputation by preſerving or reſtoring the health of others, have often been hurried away before the natural decline of life, or have paſſed many of their years under the torments of thoſe diſtempers, which they profeſs to relieve. In this number was SYDENHAM, whoſe health began to fail in the fifty-ſecond year of his age by the frequent attacks of the gout, to which he was ſubject for a great part of his life, and which was afterwards accompanied with the ſtone in the kidneys, and its natural conſequence, bloody urine.

Theſe were diſtempers which even the art of SYDENHAM could only palliate, without hope of a perfect cure, but which, if he has not been able by his precepts to inſtruct us to remove, he has at leaſt, by his example, taught us to bear; for he never betrayed any indecent impatience, or unmanly dejection under his torments, but ſupported himſelf by the reflections of philoſophy and the conſolations of religion, and in every interval of eaſe applied himſelf to the aſſiſtance of others with his uſual aſſiduity.

After a life thus uſefully employed, he died at his houſe in Pall-mall, on the 29th of December, in the year 1689, and was buried in the iſle near the ſouth door of the church of St. James in Weſtminſter.

What was his character as a phyſician, appears from the treatiſes that he has left, which it is not neceſſary to epitomize or tranſcribe; and from them it may likewiſe be collected, that his ſkill in phyſic was not his higheſt excellence; that his whole character was amiable; that his chief view was the benefit of mankind, and the chief motive of his actions the will of GOD, whom he mentions with reverence, well becoming the moſt enlightened and moſt penetrating mind. He was benevolent, candid, and communicative, ſincere, and religious; qualities which it were happy if they would copy from him, who emulate his knowledge, and imitate his methods.

THE

THE

AUTHOR's PREFACE.

1. SINCE the human body is ſo formed by nature, that, by reaſon of the continual wear of its component particles and the force of external agents, it cannot always continue in the ſame ſtate, whence numerous diſeaſes have in all ages ariſen; *doubtleſs the neceſſity of diſcovering a cure* * for them muſt have put mankind upon ſtudying phyſic, long before the birth of the *Grecian*, or even the *Ægyptian Æſculapius*, who flouriſhed a thouſand years before the former. Origin of phyſic.

2. In

* *Doubtleſs the neceſſity, &c.* If by phyſic we may be allowed to underſtand the application of all ſuch things as alleviate, or are intended to relieve corporeal diſtreſs, it may be conſidered nearly coeval with man's exiſtence. For man certainly, as an inſtinctive and rational animal, cannot be thought poſſeſſed of inferior degrees of ſagacity to that of brutes, over which he has by Providence been ordained to reign ſuperior; and they, on many occaſions, apply remedies againſt their own maladies; various proofs of which ariſe every day to our view. Dogs afflicted with worms will ſwallow the long, ſour graſs, as whole as they can, by which means the worms get entangled in it; and as it is alſo purgative, they are ſwept through the inteſtines, and thus evacuated. Cows, calves, and ſometimes horſes, will lick chalk and dirt, chickens pick lime from walls, to conquer a redundant acid in the ſtomach, &c. And we

Hard to be traced.

2. In reality, as it would be difficult to aſſign the firſt inventor of houſes and cloathing, for a defence againſt the injuries of the weather, ſo the origin of phyſic can no more be diſcovered than the head of the Nile; notwithſtanding that this art, as well as ſome others, muſt have always ſubſiſted, though it has been cultivated more or leſs according to the diſpoſitions of different countries and ages.

Its ancient and modern improvers.

3. The performances of the ancients in this ſcience, and chiefly of Hippocrates, are well known; their works containing the moſt conſiderable part of the curative branch; *and the fol-*

may naturally conclude that man, ſubject from the nature of his machine to different uneaſy affections, would of courſe at firſt, by ſome ſimilar means, inſtinctively ſeek redreſs; but being moreover endowed with a rational principle, and a diſpoſition inquiſitive, would carry his inquiries ſtill farther, and endeavour to inveſtigate cauſes, and acquire, as far as he could, ſome modes that might render him more certain in his applications. Thus would he from time to time collect remedies uſeful to himſelf in a variety of complaints; and hence every man at firſt was his own phyſician; in his own power was thus far the attainment of medical knowledge, which would to one another be naturally communicated. And it is not improbable, but the firſt who was conſidered as practiſing the healing art for the benefit of mankind, was one only who had made the moſt copious collection of remedies; and the great utility experienced from them awakened the attention of philoſophers, who, conſcious of the good purpoſes flowing from this ſource, began to cultivate it as one of the ſciences, and many to this branch ſo cloſely devoted themſelves, that they ſpent their lives in the purſuit, and became philoſophic phyſicians. Thus we find, from the neceſſity of mankind, it is probable, phyſic had its origin almoſt at as an early a period as man himſelf; and, from its conſequence, aroſe to one of the moſt uſeful and noble arts; and is now, from its utility, univerſally cultivated, and eſtabliſhed on a firm and laſting baſis. *W.*

lowing

lowing ages * have produced ſome eminent men, who have ſpared no pains to extend its limits by a cloſe application to either anatomy, pharmacy, or practice, not to mention thoſe of our own age and nation, whoſe endeavours in all the ſciences that tend to improve this art, deſerve the praiſes of an abler pen.

4. But how conſiderable ſoever their attempts have been, I ſhould always have eſteemed myſelf an uſeleſs member of ſociety, had I not contributed my mite towards the improvement of phyſic; and upon this account, after long deliberation, and many years cloſe and faithful obſervation, I reſolved (1.) to communicate my thoughts relating to the manner of making farther advances in phyſic; and (2.) to publiſh a ſpecimen of my endeavours in this way. The endeavours of the author.

* *And the following ages.* Great as have been the improvements in phyſic, it has been aſſigned as a reaſon why they have not been more extenſive and perfect, that ſucceeding ages have deviated too much from reaſon and experience, the two only maſters which in this ſcience ought to be purſued, and wandered in the dark labyrinths of hypothetical conceit. Formerly there might have been ſome foundation for this accuſation; but at preſent the charge is inadmiſſible and ill founded; for moſt of our medical works which lay claim to modern attention, are recitals of caſes, with the methods adopted to complete the cures; but it is to be lamented, that too many of them are vague, and not deſcribed with ſufficient accuracy; neither minutely deſcriptive enough, nor declaratory of the conſtitutional or other circumſtances with which they are combined;—for in all theſe the ſlighteſt ſymptoms *preceding* or *concomitant* ſhould be mentioned; the *age*, *ſex*, and *conſtitution*, with its peculiarities, as far as they are diſcoverable; the *ſtates of the atmoſphere*, *mode of life*, *ſituation*, *climate*, and *diſpoſition*, ſhould be conſidered as well as the diſeaſe; for variations in theſe particulars have very often great influence on the machine, and aſſiſt in producing the complaint, rendering it mild or violent; and contributing to favour one mode of cure in preference to another. *W.*

The ways of improving phyſic.

5. *The improvement of phyſic,** in my opinion, depends (1.) upon collecting a genuine and natural deſcription or hiſtory of all diſeaſes as can be procured; and (2.) laying down a fixed and complete method of cure. It is eaſy enough to deſcribe diſeaſes unſkilfully, but to write ſuch a full and accurate hiſtory of them as to eſcape the cenſure that Lord Bacon has paſſed upon ſome great promiſers in another way, is a much more difficult taſk: "*We are not to learn,*" ſays the noble author, "*that we have a voluminous "natural hiſtory, which is agreeable to the variety "of its matter, and, by the pains beſtowed upon "it, rendered curious and entertaining in many*

* *The improvement of phyſic, &c.* The hiſtory of diſeaſes, ſays Baglivi, or the *medicina prima*, ought to be diſtinguiſhed from the curative part, or the *medicina ſecunda*; the former is a ſcience *ſui generis*, and is only to be drawn from the pure and uncorrupted ſprings of nature; or, to ſpeak more properly, depends upon a plain and accurate deſcription of diſtempers, as they appear in their beginning, height, increaſe, declenſion, and termination, to the diligent and judicious obſerver. The *medicina ſecunda*, or the curative branch of the art, may, I confeſs, be much improved by an application to other ſciences, eſpecially to thoſe that have any relation to phyſic, or may be conſidered as branches thereof, amongſt which chemiſtry, botany, the knowledge of the ſix non-naturals, experimental philoſophy, anatomy, and the like, may be enumerated, which eminently contribute towards the perfection of the method, and the deriving the curative indications from every the leaſt circumſtance. *Baglivi Opera*, pag. 14, 15.

Beſides theſe things here laid down, I ſee no reaſon why known cauſes are to be neglected; for certainly they will furniſh us with information, ſooner than any other means, capable of leading more directly to the mode of cure; for the immediate cauſe removed, its effect ceaſes: nor ſhould thoſe which are more remote be inattentively paſſed by, as from our knowledge in this point we may very often be empowered to prevent diſeaſes their natural conſequences, or ſtop their progreſs. *W.*

"*places;*

" *places*; *but if it were ſtript of its fables, quo-*
" *tations, trifling diſputes, philology, and other or-*
" *naments, that are fitter for the converſation of*
" *learned men at their hours of relaxation, than for*
" *inſtitutes of philoſophy, the matter of it would*
" *be brought into a narrow compaſs. Such a hiſ-*
" *tory falls far ſhort of our deſign.*" And thus the cure of diſeaſes is eaſily delivered according to the common method; but to do it in a maſterly, ſcientifical manner will appear a much harder taſk to thoſe who know that there are abundance of diſtempers to be met with in practical writers, that were and ſtill continue incurable.

6. But with regard to the hiſtory of diſeaſes, whoever conſiders the undertaking deliberately, will eaſily perceive that the author muſt attend to ſeveral more particulars than are ordinarily minded; a few of which I ſhall mention at preſent.

The hiſtory of diſeaſes a work of difficulty.

7. (1.) All diſeaſes, then, ought to be reduced to certain and determinate kinds, with the ſame exactneſs as we ſee it done by botanic writers in their treatiſes of plants. For there are diſeaſes that come under the ſame *genus*, bear the ſame name, and have ſome ſymptoms in common, which, notwithſtanding, being of a different nature, require a different treatment.—Thus it is generally known, that the word *carduus* is applied to ſeveral kinds of herbs, and yet a botaniſt would be guilty of inaccuracy, who ſhould content himſelf with giving a general deſcription of the plant, and enumerating the marks wherein it differs from all others, and in the mean time take no notice of the peculiar characteriſtics of every ſpecies, which diſtinguiſh them

Diſeaſes to be reduced to certain kinds.

them from one another. In like manner, it is not enough for a writer to give us only the common ſigns or appearances of any diſeaſe; for though the ſame variety does not happen in all diſtempers, yet I hope to make it plainly appear, in the following ſheets, that there are ſeveral, which, notwithſtanding their being treated of by authors under the ſame name, without any diſtinction of kind, are extremely different.

But not to ſupport any hypotheſis.

8. Furthermore, where we meet with this diſtribution of diſtempers into kinds, it is commonly done to ſerve ſome hypotheſis founded upon the true phenomena; and thence this diſtinction is rather adapted to the bent of the author, and his manner of philoſophiſing, than to the nature of the diſorder. How much the improvement of phyſic has been obſtructed by this erroneous procedure appears in not a few diſeaſes, the cure of which would not have been undiſcovered at this day, if the benevolent writers of experiments and obſervations had not been deceived by taking one diſeaſe for another. And to this cauſe I eſteem it owing, that the *materia medica* is ſo immenſely enlarged, and yet with little advantage to the diſeaſed.

No hypotheſis to be uſed in writing a hiſtory of diſeaſes.

9. (2.) *In writing, therefore, a hiſtory of diſeaſes,** every philoſophical hypotheſis which hath pre-poſſeſſed

* *In writing, therefore, a hiſtory of diſeaſes, &c.* This advice deſerves the ſtricteſt attention; as CELSUS himſelf at that early period in which he wrote, when ſpeaking of medicine, ſays, "Obſcuris omnibus, non à cogitatione ar-"tificis, ſed ab arte ipſa rejectis,"—All things obſcure ſhould not only be rejected from the conſideration of the practitioner, but baniſhed from the art itſelf——And this is certainly highly proper; for whenever hypotheſes, thoſe children

poſſeſſed the writer in its favour, ought to be totally laid aſide, and then the manifeſt and natural phenomena of diſeaſes, however minute, muſt be noted with the utmoſt accuracy, imitating in this the great exactneſs of painters, who in their pictures copy the ſmalleſt ſpots or moles in the originals; for it is difficult to give a detail of the numerous errors that ſpring from hypotheſis, whilſt writers, miſled by falſe appearances, aſſign ſuch phenomena for diſeaſes, as never exiſted but in their own brains; whereas they ought to appear clearly, if the truth of their favourite hypotheſis, which they eſteem inconteſtable, were well eſtabliſhed. Again, if any ſymptom, properly ſuiting their hypotheſis, does in reality belong to the diſeaſe they are

children of oſtentation and fertile invention, are ſtarted, and accompany medical hiſtories, we invariably find ſuch hiſtories calculated to anſwer in ſupport of the cauſes and effects being produced from thoſe imaginary principles laid down as poſitive facts, which, when experimentally examined, prove to be fallacious. The miſchief from hence ariſing is obvious. For phyſic has from theſe ſources been extremely retarded in its progreſs, and would ever have been prevented from attaining any degree of perfection. If men's ingenuity had continued to be employed in ſupporting hypothetical data, rather than inveſtigating truth, as on theſe occaſions they are merely purſuing an ignis fatuus, which will conſequently lead them into error; and however ingenious or plauſible may be their pretext, the reſult of all their inquiries will be deceptive; and I cannot avoid being of the ſame opinion with Bp. Brown, "That "there never will be any great and conſiderable advances "made in the art of healing, till all hypotheſes and me- "chanical reaſoning are out of vogue, and till men are "come about again to the ancient method of pure experi- "ment, and the common obvious reaſoning from thence." That period ſeems to be advancing very faſt; for medicine never ſtood upon a more firm baſis, nor ever was ſupported on more rational principles than at this day. *W.*

about

about to describe, they lay too much stress upon it, as if nothing more was wanting to confirm it; whereas, on the contrary, if it does not agree with their hypothesis, their manner is, either to take no notice at all of it, or but barely to mention it, unless they can, by means of some philosophical subtilty, adjust it thereto, and bring it in some measure to answer their end.

The proper and accidental symptoms to be particularized in describing a disease.

10. (3.) *Again, in describing any disease it is necessary to enumerate both the peculiar and constant phenomena or symptoms,** and the accidental ones separately; of which latter kind are those which

* *In describing any disease it is necessary to enumerate*, &c. *Hippocrates*, by closely attending to observation, discovered that diseases have certain constant and individual symptoms, and others that are adventitious or casual, and common to other distempers, and that the former depend upon the identical and constant nature of the disease, and the latter, upon the different treatment of the patient, or the numerous and always various assemblage of causes. The first he formed into aphorisms, as the rules of the art, and left the latter to the judgement of the physician.

The constant symptoms, which may be called the characteristic signs of diseases, sometimes strike the senses and sometimes lie concealed, and cannot be accounted for in a probable way; and nevertheless, whatever they are, they ought not to be overlooked by the physician, but should be faithfully noted, just as they appear. For as the curative indications are taken from every the least circumstance, so the least motions of diseases, though somewhat obscure, are to be investigated and described; by which means we shall not only be furnished with a complete history of distempers, but a method of cure likewise, which is still more valuable. To the obscure motions of diseases may be referred the critical days, the secret changes of diseases amongst themselves, their translation to one part rather than another, the latent mutual consent of the parts, the periods of diseases, and their increase at set hours, which happens in some kinds of pains, in fevers also, and several other disoders. *Baglivi Opera*, pag. 6, 7.

differ

differ occaſionally by reaſon of the age and conſtitution of the patient, and the different method of cure. For the appearance or aſpect of a diſorder often varies according to the different method of cure, ſome ſymptoms being rather occaſioned by the phyſician than the diſorder itſelf; ſo that perſons labouring under the ſame illneſs being differently treated, have different ſymptoms. And hence, unleſs great caution be uſed in this point, our notions of the ſymptoms of diſeaſes muſt neceſſarily be very looſe and uncertain; not to mention that uncommon caſes do not more properly belong to the hiſtory of diſeaſes than the biting of the palmer worm, in deſcribing *ſage*, is to be reckoned amongſt the characteriſtic marks of that plant.

11. (4.) Laſtly, the ſeaſons of the year that principally promote any particular kind of diſeaſes, are to be carefully remarked. I own that ſome happen indiſcriminately at any time, whilſt many others, by a ſecret tendency of nature, follow the ſeaſons of the year with as much certainty, as ſome birds and plants. And indeed I have often wondered, that this tendency of ſome diſtempers, which is very obvious, has been hitherto obſerved but by few; whereas abundance of perſons have, with great exactneſs, noted under what planet, plants ſpring and brutes ingender. But from what cauſe ſoever this inadvertency proceeds, certain it is, that a knowledge of the ſeaſons in which diſeaſes ordinarily ariſe, is of great uſe to a phyſician towards diſcovering the ſpecies of the diſeaſe, as well as the method of curing it; and that the conſequence of ſlighting this piece of knowledge is ill ſucceſs in both.

The ſeaſons of the year to be carefully noted.

12. *Theſe*

The uſefulneſs of a hiſtory of diſeaſes to practice.

12. *Theſe are ſome of the moſt remarkable, though not the only particulars to be obſerved in writing a hiſtory of diſeaſes*;* the uſefulneſs of which to practice is not to be conceived, and in compariſon whereof the ſubtile inquiries and trifling notions with which the writings of the moderns abound are of no ſort of value. For is there a ſhorter, or indeed any other way of coming at the morbific cauſes we are to encounter, or of diſcovering the curative indications, than by a certain and diſtinct perception of the peculiar ſymptoms? Even the ſmalleſt circumſtance is of uſe to both theſe purpoſes: for, allowing that ſome variety happens from the conſtitution of particular perſons and the method of cure, yet nature notwithſtanding acts in that orderly and equable manner in producing diſtempers, that the ſame diſeaſe appears attended with the like ſymptoms in different ſubjects; ſo that thoſe which were obſerved in Socrates, in his illneſs, may generally be applied to any other perſon afflicted with the ſame diſeaſe, in the ſame manner as the general marks of plants juſtly run through the ſame plants of every kind. Thus, for inſtance, whoever deſcribes a violet exactly as to its colour, taſte, ſmell, form, and other properties, will find the deſcription agree, in

* *Theſe are ſome of the moſt remarkable, &c.* Nothing eminent can be done in the prognoſtic, and eſpecially in the curative part of phyſic, without an accurate and circumſtantial hiſtory of diſeaſes; for how is it poſſible to foretel what will happen in a diſtemper, and proceed properly in the cure, if we are ignorant of the conſtant and fortuitous ſymptoms attending it, and the general progreſs of it from the beginning to the end, when nothing intervenes to obſtruct its ordinary courſe, whether from miſmanagement, accident, or otherwiſe?

moſt

moſt particulars, with all the violets in the univerſe.

13. *And, in truth, it is my opinion,** that the principal reaſon of our being yet deſtitute of an accurate hiſtory of diſeaſes, proceeds from a general ſuppoſition, that diſeaſes are no more than the confuſed and irregular operations of diſordered and debilitated nature, and conſequently that it is a fruitleſs labour to endeavour to give a juſt detail of them. Why we yet want an accurate hiſtory of diſeaſes.

14. But to reſume our ſubject: *A phyſician may likewiſe collect the indications of cure from the ſmalleſt circumſtances of the diſtemper* † as certainly as The curative indications to be gathered from the ſmalleſt circumſtances.

* *And, in truth, it is my opinion, &c.* This poſition is clearly erroneous, for diſeaſe can never be conſidered "*as* "*the confuſed and irregular operations of diſordered and de-*"*bilitated nature*;" for nature always acts with uniformity and conſiſtency, when left to herſelf; nor does ſhe *ever* err but when obſtructed by ſome means or other, which in diſeaſe is always the caſe; and this morbid affection is nothing more than a defect in, or a præternatural or ſupernatural affection of ſome part or parts of the human machine, thoſe inſtruments upon which nature is ordained to act, as will be more clearly ſhewn hereafter. So that if we are converſant with the healthful ſtate of theſe inſtruments, we ſhall readily diſcover when they perform their functions imperfectly, and be enabled to trace their defects, and give clear, minute, and particular accounts of the attendant ſymptoms and appearances. *W.*

† *A phyſician may likewiſe collect the indications of cure, &c.* The curative indications in diſtempers cannot be more certainly derived, than from the moſt threatening and prevailing ſymptoms, which chiefly manifeſt the nature and violence of the diſeaſe. If therefore, for want of noting and duly conſidering all circumſtances, and eſpecially overlooking the effects of all that is given or applied to the patient, we miſtake in the indications of cure, we muſt needs go wrong, and do miſchief.

The forming juſt indications, then, being a matter of the higheſt importance, we ought to make uſe of all the helps

as he does the diſtinguiſhing ſigns from them; and for this reaſon I have often thought, that if I had a juſt hiſtory of any diſeaſe, I ſhould never be at a loſs to apply a ſuitable remedy to it: its different phenomena or ſymptoms manifeſtly ſhewing the way to be followed, and being carefully compared together, would lead us, as it were by the hand, to thoſe obvious indications that are gathered from a thorough inſight into nature, and not from the errors of imagination.

What made Hippocrates ſo excellent a phyſician.

15. *By theſe ſteps and helps the father of phyſic, the never enough extolled Hippocrates,** came to excel

helps we can procure in order thereto, by attending to every thing that falls under the notice of the ſenſes, the procedure of nature from the beginning of the illneſs to the time we are called, the ſtrength of the patient at this time, the the cauſe of the diſeaſe, the ſeaſon of the year, the then reigning diſtempers, the ſex, age, and conſtitution of the patient, &c.; all which particulars being maturely conſidered and compared, will certainly direct us to the genuine curative indications, whence we may hope to ſucceed in the cure, or at leaſt to ſecure our reputation by making the danger known, and foretelling the fatal conſequence that is likely to enſue.

* *By theſe ſteps and helps the father of phyſic, &c.* Whoever will be at the pains of peruſing the writings of Hippocrates with due attention, will find him juſtly entitled to the eminent character he has enjoyed for ſo many ages, and is likely to preſerve to lateſt time. We meet with manifeſt proofs there of his being poſſeſſed in an extraordinary degree of the moſt eſſential qualifications of a phyſician; a more than common attention in obſerving all the different phenomena of diſeaſes, and a profound judgement to apply in the fitteſt manner to practice.

He remarked with ſurpriſing exactneſs all that preceded diſtempers, the ſymptoms that accompanied them, and what did good or hurt upon every occaſion. And indeed his ſteady and cloſe application to acquire this truly uſeful part of medical knowledge, which he juſtly held in the higheſt

excel in his profeſſion, who, after laying down this ſolid and unſhaken foundation to build the art upon, has clearly delivered the ſymptoms of every diſeaſe, without calling in any hypotheſis to his aid, as appears in his books concerning *diſeaſes*, &c. He has likewiſe left us ſome rules drawn from the obſervance of nature's method of promoting and removing diſtempers; ſuch are his *prognoſtics*, *aphoriſms*, and other writings of this kind. Of theſe particulars the theory of this eminently judicious phyſician chiefly conſiſted, which not being deduced from the trifling ſallies of a wanton imagination, like the dreams of diſtempered perſons, exhibited a genuine hiſtory of the operations of nature in the diſeaſes of mankind. Now his theory being no more than an exact deſcription of nature, it was highly rea-

higheſt eſteem, left him neither inclination nor leiſure to proſecute inquiries of leſs conſequence with diligence enough to make any conſiderable progreſs therein. He greatly improved the art by being at the pains of collecting a larger number of obſervations, in order to diſcover the iſſue of diſtempers, as to life or death, and to be able to foretel what would happen in all the caſes that came under his care: and he made ſo extraordinary a proficiency in this branch of the art, that his writings contain the beſt ſet of prognoſtics, that are to be met with in any writer at this day. Upon inquiry I fear it will be found, that moſt have copied from him in this point, and few added any thing to his diſcoveries.

It is on all hands allowed that he found phyſic in a very confuſed and imperfect ſtate, and left it much mended both in point of method and certainty. Whence he has been all along reſpected as the reſtorer and founder of the art.

Thus far Dr. SWAN—but we muſt beg leave to obſerve, that HIPPOCRATES cannot be ſaid either to be the reſtorer or founder. The art was not loſt, but cultivated by the philoſophers, amongſt the other branches of ſcience; he is allowed to be the firſt who ſeparated it from the reſt, and may truly merit to be ſtiled the great Improver of Medicine. *W.*

ſonable that he ſhould aim in his practice only at relieving diſeaſed nature by all the means he could employ; and hence, likewiſe, he required no more of art, than to aſſiſt nature when ſhe languiſhed, and to check her when her efforts were too violent; and to accompliſh both theſe ends by the ſteps and method whereby ſhe endeavours to expel the diſorder: for this ſagacious obſerver found that nature alone terminates diſtempers, and works a cure with the aſſiſtance of a few ſimple medicines, and ſometimes even without any medicines at all.

Phyſick further improveable by delivering a complete method of cure.

16. (2.) *The other method of improving phyſic* * farther conſiſts chiefly, in my opinion, in delivering a fixed and every way complete method of cure; ſuch a one, I mean, as hath been ſufficiently eſtabliſhed and verified by a competent number of experiments, and found effectual to cure any particular diſeaſe. For I conceive it not enough to publiſh the particular ſucceſs of any method or medicine, if neither are generally found to anſwer the end in all caſes, at leaſt in the ſame given circumſtances. But I maintain

* *The other method of improving, &c.* Dr. SWAN thinks ſuch a mode of cure might be eſtabliſhed in moſt diſtempers. I fear theſe expectations are more ſanguine than certain. It might probably be the caſe, were all conſtitutions ſimilar; but when we conſider the vaſt variety of peculiarities in each; the great difference in many; the multiplicity of circumſtances which create many deviations; we ſhall be apt to diſſent from this opinion, particularly if we add our ignorance in numbers of the nature of the offending cauſe. Thus circumſtanced, we labour rather to guard the conſtitution againſt the ill effects produced by the morbid cauſe, and ſuffer it to be thrown out of the habit with as little moleſtation as poſſible; and hence we are obliged to vary our modes according to the conſtitutional defect of our patients, rather than attempt a ſubduction of the offending matter within the habit. *W.*

that

that we ought to be as certainly assured that a particular disease may be conquered by answering a certain indication, as we are of answering a particular indication by some certain medicine; that will generally, though not always, produce the desired effect: thus, for instance, we purge with *sena*, and cause sleep with *poppies*. However, I do not deny but that the physician ought to attend carefully to the particular effects both of the method and medicine he uses in curing diseases, and to set them down for the ease of his memory, as well as the improvement of his knowledge; so that at length, after many years experience, he may fix upon such a method of curing any particular disease, as he need not in the least depart from.

17. *But the publishing particular observations is not so useful,** in my opinion; for if the observer only

The inutility of publishing particular observations.

* *But the publishing particular observations is not so useful, &c.* The author here should seem not to have sufficiently attended to the advantages derivable from faithful and accurate observations, which are the principal foundation of the pathological and curative branches of physic. For experience, the soul of the art, is the result of a number of such observations made by ourselves and others, and physic is much more indebted to them for its improvement, than to all the discoveries that have ever been made in the art, and all the hypotheses that have been invented with this specious design; many things happening daily in the course of distempers, which, being exactly noted, greatly contribute to direct us in the like cases, though it may be they cannot be accounted for in a satisfactory manner. But to render them truly useful, I confess they should be wrote with much more exactness than they generally are, and no circumstances of any moment omitted from the beginning to the ending of the distemper, as well relating to the course thereof, as the method of cure employed, setting down the medicines that were exhibited from day to day, and the effects they had,

only intends to inform us that a particular diſeaſe hath yielded once, or oftener, to ſuch a medicine; of what advantage is it to me that a ſingle medicine, which I knew not before, is added to the immenſe ſtock of eminent medicines, that we have long been peſtered with? But if, laying aſide all other medicines, I ſhould uſe only this, ought not its virtues to be approved by numerous experiments? And are there not alſo numberleſs other circumſtances, relating both to the patient and the method of cure, to be conſidered before any advantage can be reaped from a ſingle obſervation? If the medicine never fails, why does the obſerver deal only in particulars, unleſs he either diſtruſts his experience, or deſires rather to impoſe upon the public in part, than in the whole? But how eaſy a taſk it is to write large volumes of this kind can be no ſecret to one that is but little acquainted with practice; as, on the contrary, how difficult it is to lay down a

and ſpecifying likewiſe the diet, regimen, &c. in a very particular manner. Many of the obſervations delivered both by the ancients and moderns labour under great defects, and are ſo far from being complete, or the things we mean, that they do not deſerve the name of obſervations, but ought rather to be intitled fragments of obſervations, and of courſe are of little or no uſe to guide the practical phyſician in the true method of cure. For, as Dr. COTTON very juſtly obſerves, after the pain of turning over a variety of volumes, we ſtill find that the particular caſe we wanted, is either not mentioned at all, or too partially and ſuperficially to ſerve our purpoſe.

So that it is in medicine as in navigation. Rules may be laid down, and charts exhibited; but when a man hath made himſelf maſter of all theſe, he will often find himſelf among ſhelves and quickſands; and muſt at laſt have recourſe to his own natural ſagacity, to extricate himſelf out of theſe difficulties.—*Letter to Dr.* Mead *on a particular kind of ſcarlet fever, &c.* p. 21.

perfect,

perfect, and every way complete method of cure in any disease. If only one person in every age had treated but a single disease in this manner, physic would have been brought to as much perfection many years ago, as the condition of mankind will admit. But our misfortune proceeds from our having long since forsook our skilful guide *Hippocrates*, and the ancient method of cure founded upon the knowledge of conjunct causes, that plainly appear: insomuch that the art which is at this day practised, being invented by superficial reasoners, is rather the art of *talking* than of healing. But that I may not seem to advance this assertion without sufficient grounds, I beg leave to make a short digression from the subject, in order to prove *that the discovering and assigning of remote causes*,* which en-

Remote causes not to be discovered.

* *That the discovering and assigning remote causes, &c.*— Though a perfect knowledge of the immediate and conjunct causes ought in all cases, where possible to be acquired, as it will amply repay the practitioner for his assiduity; still there appears no sufficient reason for the neglect in searching after the more remote; for these once known would assist in leading us into the proximate sources from whence diseases deduce their origin very often with more certainty, and put it in our power to be extremely useful in preventing the effects from thence arising. Though if, according to SYDENHAM, this discovery is an impossible attempt, as he supposes them to lie without the reach of man's comprehension, the labour would be fruitless, and mere waste of time. Still the impossibility seems not to be clearly proved; and till that is made apparent, the pursuit ought not to be relinquished; for though in all cases the knowledge may not be attainable, yet wherever it is discoverable, obvious advantages will arise: and as a minute detail of trivial effects in medical descriptions is allowed to be material, so also may accurate investigations of distant causes, as all knowledge however small appertaining to any subject has its utility. *W.*

groſs the thoughts, and feed the vanity of curious inquirers, is an impoſſible attempt, and that only immediate and conjunct cauſes fall within the compaſs of our knowledge, and that from theſe alone the curative indications are to be taken.

Reaſons to prove this aſſertion.

18. Accordingly, it muſt be obſerved, that if the humours are retained in the body beyond the due time, either (1.) becauſe nature cannot digeſt and afterwards expel them, or (2.) from their having contracted a morbific taint from a particular conſtitution of the air, or (3.) laſtly, from their being infected with ſome poiſon: by theſe, I ſay, and the like cauſes, *theſe humours are worked up into a ſubſtantial form, or ſpecies,** that diſcovers itſelf by particular ſymptoms, agreeable to its peculiar eſſence; and theſe ſymptoms, notwithſtanding they may, for want of attention, ſeem to ariſe either from the nature of the part in which the humour is lodged, or from the humour itſelf before it aſſumed this ſpecies, are in reality diſorders that proceed from the eſſence of the ſpecies, newly raiſed to this pitch: ſo that every ſpecific diſeaſe ariſes from ſome ſpecific exaltation, or peculiar quality of ſome humour contained in a living body. Under this kind may be comprehended moſt diſeaſes, which have a certain form or appearance; nature in fact obſerving the ſame uniform method in producing and bringing diſeaſes to a height or *cri-*

* *Theſe humours are worked up into a ſubſtantial form, or ſpecies, &c.* Or, in plainer language, the humours undergo ſuch a change from ſome one of theſe cauſes, juſt mentioned, as to occaſion a diſtemper, attended with the peculiar ſymptoms proceeding from this change, and agreeable to the nature of the diſtemper hereby formed.

ſis,

ſis, as ſhe does in the production or growth of plants or animals. For as every plant or animal is poſſeſſed of peculiar properties, ſo is it likewiſe in every exaltation of any humour after its being come to a ſpecies, or diſeaſe. We have a clear proof of this every day in thoſe kinds of excreſcences that grow on trees and ſhrubs (occaſioned by the ill quality of the nutritious juice, or other cauſes) in the form of moſs, miſletoe, muſhrooms, and the like; all which are manifeſtly different eſſences, or ſpecies, from the tree or ſhrub that bears them.

Farther proved by a *quartan fever.*

19. In reality, whoever diligently and accurately conſiders the phenomena, or ſymptoms, accompanying a *quartan fever*, *viz* that it moſtly comes towards *autumn*, and keeps a certain courſe, or appearance, the fits, or periodical revolutions of it, returning as certainly every fourth day, as a clock renews its rounds, unleſs this regular courſe be interrupted by ſome external agent; that it begins with a ſhivering, and a great ſenſe of cold, which are ſucceeded by as ſenſible a degree of heat, which terminates at length in a profuſe ſweat; and laſtly, that whoever is ſeized with this diſorder, is ſeldom cured before the *vernal equinox:* I ſay, whoever duly conſiders theſe particulars, will find as ſtrong reaſons to believe that this diſtemper is a ſpecies, as a plant is one, which in like manner ſprings out of the earth, flowers, and dies, and is in other reſpects affected agreeable to its nature or eſſence. For it is not eaſy to comprehend why this diſeaſe ſhould ariſe from a combination of principles and manifeſt qualities, whilſt a plant is on all hands allowed to be a ſubſtance and diſtinct ſpecies in nature. However, in the mean time,

we do not deny but that as moſt kinds of animals or plants ſubſiſt of themſelves, ſo, on the contrary, the ſpecies of diſtempers depend on thoſe humours that produce them.

Diſeaſes curable, though their remote cauſes cannot be diſcovered.

20. But though, from what has been delivered, the cauſes of moſt diſeaſes ſhould ſeem abſolutely undiſcoverable; yet the queſtion, *how they may be cured*, may be anſwered, inaſmuch as we ſpeak here only of their remote cauſes. Now it is eaſy to obſerve, that the curious inquirers into theſe cauſes loſe their labour, whilſt they endeavour, in ſpite of nature, to inveſtigate and bring them to view, and yet overlook the immediate and conjunct cauſes that are at hand, which muſt neceſſarily and may be diſcovered without ſuch trifling helps, inaſmuch as they diſcloſe themſelves to the underſtanding, fall under the notice of the ſenſes, or may be learnt from the anatomical obſervations of our predeceſſors. And as it is manifeſtly impoſſible a phyſician ſhould diſcover thoſe cauſes that have not the leaſt correſpondence with the ſenſes, ſo neither is it neceſſary: it is ſufficient for him to learn the immediate cauſes, and thoſe effects and ſymptoms of a diſtemper that may enable him to diſtinguiſh accurately between this and another ſimilar diſeaſe. Thus, for example, in a *Pleuriſy, it is a fruitleſs labour to ſearch into the ill quality and broken texture of the blood,** whence this diſeaſe originally proceeds, which are not to be comprehended; but whoever perfectly

* *In a pleuriſy it is fruitleſs labour, &c.* This example is fallacious, for all pleuriſies ariſe not from the ill quality, and broken texture of the blood, which will be ſhewn when we come to ſpeak of that diſeaſe. *W.*

under-

underſtands the immediate cauſe thereof, and can diſtinguiſh it from all other diſtempers, will cure it as certainly, though he neglects the uſeleſs and trifling ſearch after remote cauſes—But this by way of digreſſion.

21. But if any one were to aſk whether, beſides the two foregoing *deſiderata* in phyſic, *viz.* (1.) a true hiſtory of diſeaſes, and (2.) a certain and eſtabliſhed method of cure, a third ſhould not be added, namely, *the diſcovery of ſpecific remedies?** I anſwer in the affirmative, and proceed

Specifics wanting towards the farther improvement of phyſic.

* *The diſcovery of ſpecific remedies, &c.* This, it is to be feared, would be labour in vain, for it is a doubt whether any ſuch exiſt in nature. The idea ſeems ſo have originated more from man's ignorance than conviction. This will ſtrike us more forcibly, when we reflect that during the whole ſeries of time that medicine has exiſted, according to our author's account, who is a favourer of this notion, there has not been above one diſcovered poſſeſſed of theſe indeſcribable powers, notwithſtanding ſuch diſcoveries have been the labour of all ages. How peculiarly unfortunate muſt mankind have been in their reſearches? Yet even at this day we hear men talk with confidence of ſpecific remedies, and tell us that all ſuch are to be conſidered of that claſs which cure certain diſeaſes by means undiſcoverable. But this defect of perception depends more on the want of ſagacity in the practitioner to diſcover the mode, than the myſterious ſubtlety of medicinal action.

BAGLIVI defines a ſpecific—"A medicine poſſeſſed of "ſuch peculiar virtues as *infallibly* to relieve or cure the "particular diſorder for which it is uſed; being exhibited "as nearly as can be in the ſame given circumſtances."

But ſpecifics have been conſidered of two kinds: firſt, Such as were ſpecific to a certain part of the ſyſtem; ſecond, To particular diſeaſes.

The firſt diviſion, ſays Dr. CULLEN, has been carried to great exceſs, as there is ſcarce a part of the ſyſtem which has not had a medicine adapted to it; but at firſt ſight this diviſion muſt appear falſe, as there is no diſeaſe of any particular part that is not common to any other part of the ſyſtem.

Of

proceed to do my part towards it. For though that ſeems to be the beſt method of curing acute diſeaſes,

Of this diviſion he then mentions the terms, a capite ad calcem; and begins with

1. CEPHALICS.—By theſe are meant ſuch medicines as are ſuited to diſeaſes of the head; but theſe are very various, and often oppoſite in their nature. By this term writers mean generally certain ſubſtances, which by an agreeable odour and fragrancy were grateful to the nerves at their origin in the head. If this were the caſe, the term might be admitted, but little virtue depends upon their odour, and all thoſe remarkable for this odour are ſtimulants.

A term ſynonimous to cephalic is,

2. NERVOUS—but this is ſtill more ambiguous and extenſive in its ſignification, as comprehending medicines ſuited to all nervous diſeaſes, *e. g.* ſtimulants, ſedatives, anti-ſpaſmodics.

3. OPHTHALMICS are medicines ſuppoſed to act ſpecifically in diſeaſes of the eyes, but as medicines good for diſeaſes of the eyes, are equally efficacious for the ſame diſorders in any other part of the body, this term has no proper meaning.

4. PECTORALS, THORACICS, PULMONICS, PNEUMONICS, are all terms applied to medicines ſuited to diſeaſes in the breaſt, but not one of them has a ſpecific virtue; for thoſe medicines which increaſe the bronchial mucus, will alſo promote the ſecretion of mucus in any other parts of the body. But writers in general mean, all thoſe which will promote and correct the bronchial mucus, two very oppoſite effects, and therefore the terms are confounding.

5. CARDIACS.—Cordials act in general on the nervous ſyſtem, and not ſpecifically on the heart.

6. STOMACHICA.—Many of theſe medicines excite appetite and promote digeſtion; but they are of ſuch different kinds, and to be uſed in ſuch different circumſtances, that no ſuch term ought to be admitted: with regard to the other abdominal viſcera, the terms are applied with even leſs propriety than in the former.

7. HEPATICS.—This term ſeems to have no meaning at all, as we cannot conceive any medicine has a ſpecific operation on the liver preferable to any other part of the ſyſtem. If any medicine more directly promoted ſecretion of bile, it might be called hepatic. Some ſuch indeed have been

diſeaſes, which, after nature has pitched upon a certain kind of evacuation, aſſiſts her in promoting

been ſuppoſed, but Dr. CULLEN declares himſelf unacquainted with them.

8. SPLENETICS.—This is ſtill more improper than the former.

9. NEPHRITICS.—It is poſſible there may be medicines which act more directly on the kidneys, but it is only in ſo far as they are diuretics. Nephritics are appropriated to diſeaſes of the kidneys, but they are here the ſame with demulcents, as they act by defending the kidney from the acrimony of the urine, and ſharp points of the gravel. Nephritics have not only been ſuppoſed to act as diuretics, but alſo to puſh out, and even diſſolve ſand or gravel; but we know none of this kind, but ſuch as are diuretic.

10. UTERINES.—This term is equally exceptionable with any of the former, for it is even a doubt if the menagoga act directly on the uterus.

11. APHRODISIACA.—Medicines which act on the genitals, and ſtimulate to venery. This is conſidered as a falſe indication, for we know no medicines which do this by their immediate action on thoſe organs: cantharides have been ſuppoſed to be of this kind; but they act only by being received into the blood, and ſtimulating the bladder, and ſo communicating their effects to the organs of generation. There are other aphrodiſiacs, which are ſuppoſed to increaſe the ſeminal turgeſcency; but theſe are imaginary, for we know none but nutrients, which by being long detained in the ſyſtem, diſtend all the veſſels, and the ſeminal veſicles alſo.

12. ANTIPHRODISIACS.—This is a mere unmeaning indication.

With regard to the conſideration of ſpecifics, adapted to particular diſeaſes, he ſays,

Many, diſſatisfied with the reaſonings of dogmatic phyſicians, have been led into the purſuit of ſpecifics: if this could be done with ſucceſs, it would certainly be very deſirable; but at this day I know of no medicine whoſe action I do not think I can explain by its anſwering a particular indication; which entirely deſtroys the notion of a ſpecific.—I ſhall content myſelf with barely enumerating the terms of ſuch ſuppoſed ſpecifics, what we have already ſaid ſuperſeding a farther explanation.

Anti-

ing it, and ſo neceſſarily contributes to cure the diſtemper; it is nevertheleſs to be wiſhed that the cure might be ſhortened by means of *ſpecifics* (if any ſuch medicines can be diſcovered) and, which is of more importance, that the patient might be preſerved from the evils which are the conſequence of thoſe errors that nature often unwillingly makes in expelling the cauſe, even though ſhe is aſſiſted in the moſt effectual and ſkilful manner by the phyſician.

22. As to the cure of *chronic diſeaſes*, though I believe that more advantage may be expected from the uſe of a *method* only, than can be conceived at firſt, yet it is plain that this is wanted in the cure of ſome of the moſt conſiderable diſtempers of this kind, which happens chiefly for this reaſon, that nature is not poſſeſſed of ſo effectual a method of expelling the morbific matter in *chronic* as in *acute* diſeaſes, which might enable us to conquer the diſtemper, by aſſiſting her, and aiming at the true end. In eradicating a *chronic* diſeaſe, therefore, whoever is poſſeſſed of a me-

Anti-epileptica, anti-maniaca, anti-melancholica, anti-hypochondriaca, anti-catarrhalia, anti-phthiſica, anti-hectica, anti-cachectica, anti-dyſenterica, anti-icterica, anti-ſtrumatica, anti-ſcorbutica, anti-podagrica, anti-venerea, anti-febrilia.— (See CULLEN's Materia Medica, 4*to*. London, 1772.)

This ſubject is here treated rather fully, as I think in practice the idea of ſpecifics ſhould be rejected; becauſe it may retard the progreſs of a cure by trifling; owing to too great a dependence on their imaginary efficacy; though the ſearch after them may not be totally uſeleſs, as many beneficial diſcoveries may be the reſult, ſimilar to the alchemiſtical purſuits for attaining the philoſopher's ſtone, or an univerſal remedy; which, though the quæ deſiderata were never yet acquired, yet unthought of productions, pregnant with uſe in the practice of phyſic, have been brought forward. *W.*

dicine,

dicine, powerful enough to deſtroy the ſpecies of it, juſtly deſerves the appellation of a phyſician; to which he has no right, who only introduces a new one from the firſt and ſecond qualities, inſtead of the former, which may indeed be done without aboliſhing the ſpecies. Thus, for inſtance, a perſon that has the *gout* may be heated or cooled without curing the diſtemper; ſpecific diſeaſes being not more immediately cured by that method, which is only introductive of different qualities, than fire is extinguiſhed by a ſword. For, pray, what does heat, cold, moiſture, dryneſs, or any of the ſecond qualities contribute towards the cure of a diſtemper, the eſſence of which conſiſts in none of theſe?

There are fewer *ſpecifics* than are imagined.

23. But if it be objected, that we have long been poſſeſſed of a ſufficient number of *ſpecifics*, I anſwer, that the contrary will ſoon appear, provided a ſtrict ſearch be made into this particular: the *Peruvian* bark being the only one we have. For there is a wide difference between medicines that *ſpecifically* anſwer ſome certain curative indication, which being effectually performed, perfects the cure, and thoſe that ſpecifically and immediately cure a diſeaſe, without regarding any particular intention, or curative indication. To exemplify this; *mercury* and *ſarſaparilla* are uſually reckoned ſpecifics in the venereal diſeaſe, though they ought not to be deemed proper and immediate ſpecifics, unleſs it could be demonſtrated by undeniable inſtances, that *mercury* had cured the patient without cauſing a *ſalivation*, and *ſarſaparilla* without raiſing a *ſweat*. For other diſeaſes are cured in the ſame way by other evacuations, and nevertheleſs the medicines exhibited for this purpoſe do

do more immediately contribute to the cure of the diſeaſes that yield to thoſe evacuations, which theſe medicines are principally deſigned to promote, than a lancet does towards the cure of a *pleuriſy*; which no body, I imagine, will call a ſpecific in this diſorder.

More might be diſcovered by taking due pains.

24. Specific medicines, therefore, conſidered in our limited ſenſe of them here delivered, fall not to every man's ſhare, and ſeldom to theirs who take no pains to diſcover them; and yet I doubt not but out of the overflowing fulneſs wherewith nature, by the appointment of our moſt liberal Creator, abounds for the preſervation of the whole race of mankind, proviſion is likewiſe made for the cure of the principal diſeaſes which afflict them, and that by ſuch medicines as are within reach, and the produce of every climate. It is indeed pity that we are no better acquainted with the virtues of plants, which I eſteem the beſt part of the *materia medica*, and moſt likely *to afford ſuch medicines as we have juſt treated of.** For the parts of animals

A misfortune that the virtues of plants are not better known.

* *To afford ſuch medicines as we have treated of, &c.*— Whatever may have been the expectations of our author with reſpect to diſcovering ſpecific remedies in the vegetable world, time and repeated experiments have proved that ſucceſs is not to be hoped for in this point; but hath nevertheleſs ſhewn, that plants and ſimples are highly uſeful, and many of them extremely powerful; and as they are ſafer and leſs fallacious than the more compound medicines, claim pre-eminence: beſides the advantage of having them adminiſtered in ſubſtance, or requiring a few eaſy operations to adapt them to different purpoſes; add to theſe, they are leſs liable to adulteration, nor likely to be ſpoiled by the ignorance of unſkilful operators. On theſe conſiderations certainly the more ſimple medicines are the beſt, and thoſe which are procured at the eaſieſt expence; for here is no room left for the infamous practices of trading chemiſts, who

mals ſhould ſeem to reſemble the human body too nearly, and minerals to differ too much from it; and hence it is, I ingenuouſly own, that minerals more effectually anſwer indications, than medicines prepared from animals or plants do, but yet not ſpecifically, in the ſenſe and manner above-mentioned. For, my own part, I can only ſay that I have ſpent ſome years in reſearches of this kind, yet without ſucceeding well enough to encourage me to communicate the reſult of my inquiries.

Other excellent medicines beſides plants.

25. But though I like plants beſt, yet I would not decry thoſe excellent medicines, the productions of a different kingdom, that have been diſcovered by the application of our predeceſſors or cotemporaries, and found to anſwer the curative indications effectually. Amongſt theſe *Dr. Goddard's drops** claim the firſt notice, which are prepared by *Dr. Goodall*; I prefer them to all other volatile ſpirits, on account of their efficacy and virtue in anſwering the purpoſes for which they are given.

The author publiſhes a hiſtory of *acute* diſeaſes.

26. To conclude: Having engaged myſelf in this preface, to publiſh a ſpecimen of my la-

who care not what frauds they commit in compounding; who regard not the fatal conſequences attendant on their infamous practices: abuſes of this kind call loudly for reformation; nor ſhould the conſideration be below the dignity of legiſlative authority. For why ſhould the common robber be dragged to the gallows, and ſuffer an ignominious death due to his offences, and the chemiſt, who often adds murder to his plunder, be permitted to live with impunity. *W.*

* *Dr. Goddard's drops, &c.*—The medicine that goes under this name is an highly volatile oleous alcaline ſpirit, drawn from dead ſilk worms and their remains, and extolled for giving relief in convulſions from acidities, or worms: but the preſent practice takes no notice of it.

bours

bours for the improvement of phyſic, I will now endeavour to fulfil my promiſe, by preſenting the public with the hiſtory and cure of acute *diſeaſes*. And though in executing this deſign, I am ſenſible I ſhall expoſe all the fruit of my labours, for the beſt part of my life, to the indolent and ignorant, yet I am too well acquainted with the diſpoſition of this degenerate age to expect any thing but cenſure and contumely in return; and know that I ſhould have gained more reputation by advancing ſome trifling and uſeleſs ſpeculation: but be that as it will, *I hope to be rewarded elſewhere.**

27. If

* *I hope to be rewarded elſewhere, &c.*—From various parts of our author's works it is clear he experienced no ſmall ſhare of malevolence from ſome of his cotemporaries—more the reſult of envy, than any other cauſe: "But," ſays Dr. SWAN, "poſterity has abundantly made it up to him "ſince his death; for no one, the great Hippocrates himſelf not excepted, ever ſtood poſſeſſed of a fairer reputation, than he has ſince *enjoyed*, and ſtill bears: his judgement, integrity, and candour, are univerſally acknowledged and applauded. The phyſicians of our own country have recourſe to his writings *as an oracle*, and foreigners never mention him without the moſt honourable titles; to ſum up all in one, many of them call him the Engliſh Hippocrates." Dr. SWAN ſeems to be poſſeſſed alſo of no ſmall ſhare of enthuſiaſtic zeal for the author. But though we will allow that great praiſe is due to the merits of SYDENHAM, yet we think his works fall ſomething ſhort of ORACULAR; his theory is generally looſe and erroneous; his modus medendi in many places not perfectly juſt; and were it always to be adopted, and cloſely purſued in ſome caſes, much miſchief would be the conſequence, as will be perceptible when we come to animadvert on ſome particular parts of his works. His chief excellence lies in the deſcription of diſeaſes, and here few men equal, none excel him: for he was a minute obſerver of nature, and attempted, not unſucceſsfully, to follow her through all her mazes. In the management of diſeaſes, his animadverſions

are

27. If it be objected here, that there are those no less versed in practice than I am, who are of a different opinion; I answer, that it is none of my business to inquire into what other persons think, but to establish the truth of my own observations; in doing which, I only beg the reader's patience, not his favour, for the subject itself will soon shew whether I have acted with sincerity, or, on the contrary, like the most profligate wretches, endeavoured to destroy my fellow-creatures after my decease. I only beg pardon for having delivered the history and cure of diseases with less accuracy than I intended, being sensible that I have not completed my design, but rather excited men of greater abilities to undertake the finishing of a performance hereafter, that I have here executed imperfectly.

The author only solicitous to establish his own observations.

28. And now I have but one thing more to inform the reader of, which is, that I do not intend to swell the following sheets with a multitude of particular observations in confirmation of the method therein delivered; for it would be both needless and tiresome to repeat those things particularly which I have comprised in a sum-

Gives few particular observations to avoid swelling the work;

are accurate, and his discernment sagacious; but he rather laboured in acute complaints to pursue the particular courses, and assist in the different stages, than advert to the methods of prevention, which certainly may in many cases be accomplished. And though no physician can deserve higher encomiums than SYDENHAM, considering the state of physic at that period of time in which he practised; yet the improvements made in the art since his day, forbid us to pay so slavish an obedience to his documents, as the idea of his being an oracle in medicine would enforce. Experience should only direct us in medical pursuits, and whenever we find notions deviating from the path of truth, however great the characters who may have adopted them, they should be done away without reserve. *W.*

mary way. I eſteem it ſufficient to ſubjoin occaſionally a particular caſe, containing the ſubſtance of the preceding method, at the concluſion of every general obſervation, at leaſt with reſpect to late years. And I declare that I have publiſhed no general method, that has not been eſtabliſhed and verified by frequent experience.

and only a few preſcriptions.

29. Whoever expects to meet with abundance of preſcriptions will be diſappointed; it being left to the judgement of the phyſician to preſcribe as the circumſtances may require. I have done my part by mentioning the indications to be anſwered, and pointing out the time and manner of doing it: for the practice of phyſic chiefly conſiſts in being able to diſcover the true curative indications, and not medicines to anſwer them; and thoſe that have overlooked this point have taught empirics to imitate phyſicians.

Apologizes for the ſimplicity of the medicines he recommends.

40. But if it be objected, that in ſome caſes I have not only renounced the pompous part of preſcription, but likewiſe recommended ſuch medicines, as, by reaſon of their ſimplicity, have little or no affinity with the *materia medica*; I anſwer, that I conceive that this procedure will offend none but perſons of little underſtanding and leſs benevolence; for the wiſe know that every thing is good which is uſeful. And that *Hippocrates* in adviſing the uſe of bellows in the *iliac paſſion*, and the total diſuſe of all medicines in a *cancer*, with other articles of the like nature, which occur in almoſt every page of his writings, deſerves to be eſteemed as able a phyſician, as if he had filled them with the moſt pompous preſcriptions.

31. *I in-*

31. *I intended alſo to have given a hiſtory** of *chronic* diſeaſes, at leaſt of thoſe I had moſt frequently treated; but as this will be a work of labour, and being deſirous likewiſe to ſee firſt how theſe ſheets are received, I defer the proſecution of it to ſome other time.

* *I intended alſo to have given an hiſtory, &c.*—With the completion of this intent, ſaid to be drawn up with great thought and care, and given to the editor of his works by SYDENHAM himſelf, we are favoured in his Proceſſus integri; but it ſeems to be a performance not wholly to be depended upon. In conſulting our author it would be more adviſeable to turn to thoſe parts of his work, where he treats of particular diſeaſes in a leſs conciſe manner, and where Notes illuſtrative, explanatory, and corrective are annexed, in order to avoid error, and ſupply deficiencies. *W.*

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SECT.

SYDENHAM

ON

DISEASES.

SECTION I. CHAP. I. Sect. 1.

Of acute Diſeaſes in general.

1. *A DISEASE,** in my opinion, how prejudicial ſoever its cauſes may be to the body, is *no more than a vigorous effort of nature* to throw off the morbific matter, and thus recover the patient. For as God has been pleaſed ſo to create mankind Diſeaſes defined.

* *A diſeaſe is no more than a vigorous effort of nature, &c.* Agreeable to this definition, the effects of diſeaſe are placed for diſeaſe itſelf, conſequences for a cauſe; which gives us a very inadequate idea of the matter we expect, by this term, to be underſtood—for the diſeaſe does exiſt before the effects are produced. Indeed, it is rather ſurprizing, that even at this day, amongſt the number of definitions given, none of them ſhould be ſo fully comprehenſive as to take in all that is meant by the term:—Some diſeaſes receive their appellations from their cauſes; as the ſtone, worms, hydrocephalus, &c. Some are merely, and indeed moſt of them only an enumeration of ſymptoms or effects; as the jaundice, rheumatiſm, gout, &c.

Dr. SWAN, the laſt Commentator on the works of SYDENHAM, ſays, "a diſeaſe may be defined, a conſiderable alteration in the motion, mixture, or quantity of the fluids; a too great tenſion, or relaxation, and conſequently an acceleration or languid motion of the ſolids; affecting the whole body, or only ſome parts thereof; joined with a remarkable diſorder of the ſecretions, excretions, vital, or animal functions; and tending either to recovery, death, or the diſordering ſome parts of the body when the diſeaſe terminates in another."

Sect. 1. mankind, that they ſhould be fitted to receive various impreſſions from without, they could not, upon this accunt, but be liable to different diſorders; which ariſe (1.) either from ſuch particles of the air, as having a diſagreement with the juices, inſinuate themſelves into the body, and, mixing with the blood, taint the whole

This definition is confuſed, and imperfect—a jumbling together of few cauſes and many conſequences unneceſſarily. It wants perſpicuity and amplitude.—The Doctor ſeems conſcious of the difficulty of the taſk;—for he ſays, "The "deſcription of a diſeaſe, as it appears in all its various "ſymptoms in the human body, is ever the beſt definition "that can be given of it; this alone is truly ſcientifical, and "reſts upon the moſt ſolid foundation." This may be true with regard to particular diſeaſes; but here a general definition is wanted, in which the whole of the varieties may be enveloped. *Sydenham* certainly formed his, from his idea of fever; where he ſuppoſed morbid miaſma had been received into the habit, occaſioning conſtitutional diſturbance, and was to be eliminated or ſubdued; or where ſome change was neceſſary to be brought about in the blood and fluids, and they, as it were, purified or cleared from ſome offenſive materials. But as diſeaſes are denominated differently by authors, from various principles, ſometimes depending upon cauſes, ſometimes from appearances; ſuch a general definition is required, in which the whole may be included. We therefore think, diſeaſe may be defined—

A præter- or ſuper-natural affection of ſome part or parts, or the whole of the machine, by which the ſyſtem is injured and diſturbed; or the action of a part impeded, perverted, or deſtroyed; attended with peculiar ſymptoms, adapted to the nature of the affection, and parts affected: or appearances deviating from health, from ſome general or partial affection, by which the ſyſtem in general, or in part, is oppreſſed or disfigured.

This definition appears to comprehend fully every diſeaſe, however arranged, and whatever called by any writer. And as ſome diſeaſes receive their appellation from the immediate acting cauſe, or from ſome collection in a part or parts of of the body; as dropſy, ſtone, hernia, &c. whilſt others are only an aſſemblage of ſymptoms—ſuch a definition as is here given, becomes abſolutely neceſſary. *W.*

frame;

frame; or (2.) from different kinds of fermentations and putrefactions of humours detained too long in the body, for want of its being able to digeſt, and diſcharge them, on account of their too large bulk, or unſuitable nature. Chap. 1. Their cauſes.

2. Theſe circumſtances being ſo cloſely interwoven with our conſtitutions, that no man can be entirely free from them, Nature provides ſuch a method and train of ſymptoms, as may expel the peccant matter that would otherwiſe deſtroy the human fabric. And though this end would be more frequently obtained by theſe diſagreeable means, were not her method obſtructed through unſkilfulneſs; yet, when left to herſelf, either by endeavouring too much, or not enough, the patient pays the debt of mortality: for *it is an immutable law, that no generated being can always continue.* Their ſymptoms.

Conſtat æternâ poſitumque lege eſt,
Conſtet ut genitum nihil. BOETIUS.

3. A little to exemplify this doctrine: What is the *plague* but a complication of ſymptoms to throw out the morbific particles (taken in with the air we breathe) through the proper emunctories, by way of external abſceſs, or other eruptions? What is the *gout*, but the contrivance of nature to purify the blood of aged perſons, and, as *Hippocrates* phraſes it, to purge the receſſes of the body? *And the ſame may be ſaid of many other diſeaſes,** when they are perfectly formed. Illuſtration.

4. But

* *And the ſame may be ſaid of many other diſeaſes, &c.* Nothing is more evident than that the body is a *living* machine, ſo formed that many of its diſorders correct themſelves, and reſtore the body to its natural ſtate; whilſt others perpetuate and increaſe themſelves, and bring on its deſtruc-

Sect. 1.

Acute diſeaſes, whence.

4. But nature performs this office, quicker or ſlower, according to the different methods ſhe takes to expel the morbific cauſe. For when a fever is required to looſen the morbid particles from the blood, to promote their ſeparation, and at length diſcharge them by ſweat, a looſeneſs, eruptions, or other ſimilar evacuation; as this effect is produced in the maſs of blood, with a violent motion of the parts, it follows, that the change to recovery or death, muſt be ſudden, (according as Nature can conquer the morbific matter by a criſis, or is forced to ſubmit) and that theſe efforts muſt be joined with violent and dangerous ſymptoms. And of this kind are all *acute diſeaſes*, which come to their ſtate with rapidity, violence, and danger. Now, in this way of ſpeaking, all thoſe diſeaſes may be eſteemed *acute*, which, with reſpect to their fits taken together, go on ſlowly, but with reſpect to a ſingle fit are ſoon terminated *critically*, of which kind are all intermittent fevers.

Chronic diſeaſes, whence.

5. But where the matter of the diſeaſe is ſuch that it cannot raiſe the aſſiſtance of a fever, for its thorough diſcharge, or is fixed upon a particular part too weak to expel it, either on account

tion. Hence, it clearly follows, that it is the buſineſs of phyſicians to diſcover from obſervation, the ſeveral ways leading to theſe contrary ends, in the ſeveral diſorders of the body; to promote the firſt and oppoſe the laſt. Thus, for inſtance, acrimonious matter in the ſtomach and bowels occaſions a vomiting and looſeneſs; which are ſometimes juſt ſufficient to relieve the body, by diſcharging what is offenſive; ſometimes fall ſhort of this; and at others are ſo violent as to end in exhauſtion and death. Accordingly the phyſician ought, in ſome caſes, to give emetics or purgatives, and in others, opiates, as experience, with the reaſoning reſulting from it, ſhall direct.

of

of the peculiar ſtructure of that part, (as in the palſy, where the morbific matter is fixed in the nerves, and an empyema, where it is diſcharged into the cavity of the breaſt) or through a want of natural heat and ſpirits, (as when phlegm falls upon the lungs weakened by age, or an habitual cough) or laſtly, from a continual afflux of a new matter, whereby the blood becomes vitiated, and, by its vigorous endeavours to throw it off, overpowers and oppreſſes the part affected; in all theſe caſes, the matter is ſlowly brought to concoction, or not at all; and therefore diſeaſes proceeding from ſuch indigeſtible matter, are what we properly term *chronic*. And from theſe two contrary principles, *acute and chronic diſeaſes* * reſpectively ariſe. Chap. 1.

6. As to acute diſeaſes, of which I now deſign to treat, ſome of them proceed from a latent and inexplicable alteration of the air, infecting the bodies of men; and not from any peculiar ſtate or diſpoſition of the blood and juices, any farther than an occult influence of the air may communicate this to the body; theſe continue only during this one ſecret ſtate or conſtitution of the air, and, raging at no other time, are called *epidemic diſtempers*. The cauſes of acute epidemic diſeaſes.

7. There are other acute diſeaſes, ariſing from ſome peculiar indiſpoſition of particular perſons; but as theſe are not produced by a general cauſe, Intercurrent or ſporadic acute diſeaſes.

* *Acute and Chronic diſeaſes, &c.* Without adverting to particular cauſes, concoction, &c. theſe terms are derived from the nature of effects; we therefore call all thoſe diſeaſes which run rapidly on to their termination, and are attended with violence, and immediate danger, ACUTE; thoſe which are ſlow in their progreſs, unattended with great degrees of ſeverity, and continue a long ſeries of time, CHRONIC. *W.*

Sect. 1. few are ſeized with them at once. Theſe alſo appear in all years, and at any time of the year indifferently, ſome exceptions admitted, which I ſhall hereafter mention, in treating of this kind particularly. Theſe I call *intercurrent* or *ſporadic* acute diſeaſes, becauſe they happen at all times when epidemics rage. I will begin with epidemics, and chiefly propoſe to give a general hiſtory thereof.

CHAP. II.

Of epidemic Diſeaſes.

Epidemic diſeaſes differ ſurprizingly;

1. IF one were to examine all the branches of phyſic, nothing, perhaps, would appear ſo ſurpriſing as the different, and perfectly diſſimilar face of epidemic diſeaſes; which do not ſo much relate to, and depend upon the various ſeaſons of the ſame year, as upon the different conſtitutions of different years.

require a different treatment.

2. And this manifeſt diverſity of theſe diſeaſes ſtill farther appears, not only from their proper and peculiar ſymptoms, but alſo from the different method of cure they reſpectively require. Hence it is clear, that theſe diſtempers, though to leſs accurate obſervers they may ſeem to agree in their external face, and certain ſymptoms in common, are, in reality, of very different and diſſimilar natures. Whether a careful examination, ſuch as, perhaps, could not be well made in the life of one man, might ſhew, *that certain tribes of epidemic diſorders,** conſtantly follow others, in

* *That certain tribes of epidemic diſorders, &c.* However uſeful the aſcertainment of this point might be, we ſeem to have

in one determined ſeries, or circle, as it were; or whether they all return indiſcriminately, and without any order, according to the ſecret diſpoſition of the air, and the inexplicable ſucceſſion of ſeaſons, I am not certain. Chap. 2.

3. This, however, I am convinced of from numerous careful obſervations, that the abovementioned kinds of diſeaſes, eſpecially continued fevers, differ ſo extremely, that the ſame method which cures in the middle of the year, may poſſibly prove deſtructive at the concluſion of it; and when I had once happily fallen upon a genuine method of treating any ſpecies of fevers, ſuitably to its nature, I always proved ſucceſsful (proper regard being had to the conſtitution, age, and other particular circumſtances of the patient) till that ſpecies became extinct, and a new one aroſe; when I was again doubtful how to proceed, and, notwithſtanding the utmoſt caution, could ſcarce ever preſerve one or two of my firſt patients from danger, till I had thoroughly inveſtigated the nature of the diſtemper, and then I proceeded in a direct and ſafer way to the cure.

4. And though I have carefully obſerved the different conſtitutions of different years, as to the manifeſt qualities of the air, that I might from thence diſcover the cauſes of the ſo great diſſimilitude of epidemic diſeaſes, yet I muſt own, I have hitherto made no progreſs; having found that years perfectly agreeing as to the manifeſt temperature of the air, have nevertheleſs pro-

have no ſteps taken towards the acquiſition of this ſpecies of information; and reaſon pleads ſtrongly in favour of the latter opinion, particularly when we conſider that conſtitutional prediſpoſition is neceſſary to produce febrile morbid effects. *W.*

Sect. 1. duced very different tribes of diſeaſes; and *vice verſa.*

5. The matter ſeems to ſtand thus: there are various general conſtitutions of years, that owe their origin neither to heat, cold, dryneſs, nor moiſture; *but rather depend upon a certain ſecret and inexplicable alteration in the bowels of the earth,** whence the air becomes impregnated with ſuch kinds of *effluvia*, as ſubject the human body to particular diſtempers, ſo long as that kind of conſtitution prevails, which, after a certain courſe of years, declines, and gives way to another. Each of theſe general conſtitutions is attended with its own proper and peculiar kind of fever, which never appears in any other; and therefore I call this kind of fever *ſtationary.*

Stationary fevers defined.

6. There are alſo certain particular conſtitutions of the ſame year, in which, though ſuch kinds of fevers as follow the general conſtitution of the year, with regard to the manifeſt qualities of the atmoſphere, may prove more or leſs epidemic, and riſe either earlier or later; yet the fevers that appear in all years (which we therefore call *intercurrents)* do proceed from ſome one or other manifeſt quality of the air; for inſtance,

* *But rather depend upon a certain ſecret and inexplicable, &c.* It is ſingular that a man who reprobates the ſearch after remote cauſes, and deſpiſes all ſpeculative and hypothetical notions, ſhould fall upon this mode of reaſoning: one who recommends the rejection of all purſuits after things which are incomprehenſible to man's underſtanding, ſhould pretend to account for diſeaſes ariſing from the air being impregnated with ſuch kinds of effluvia, deducing their origin from ſecret and inexplicable alterations in the bowels of the earth. It is truly paradoxical, and can only ſerve as a proof, that even the greateſt characters can now and then deviate from themſelves, and love to wander in the paths of viſionary conjecture. *W.*

pleuriſies,

pleuriſies, quinſies, and the like, which generally happen when an intenſe and long continued cold is immediately ſucceeded by a ſudden heat. It may therefore be, that the ſenſible qualities of the air have ſome ſhare in producing thoſe intercurrent fevers, which appear in every conſtitution of the atmoſphere, but they do not cauſe the epidemics peculiar to the general conſtitution. And yet, at the ſame time, it muſt be acknowledged that the above-mentioned qualities of the air may more or leſs diſpoſe the body to the particular epidemic diſeaſe; and the ſame may be affirmed of any error in the non-naturals. Chap. 2. Stationary fevers not produced by the manifeſt qualities of the air.

7. Now it muſt be obſerved, that ſome epidemic diſeaſes, in ſome years, are uniformly and conſtantly the ſame, appearing in almoſt every patient with the ſame train of ſymptoms, and going off in the ſame manner. From this kind, therefore, as the moſt perfect, the genuine hiſtory of epidemic diſeaſes is to be taken. Some epidemics regular.

8. On the contrary, in other years there are other diſtempers, which, though called epidemic, prove very irregular and diſſimilar, as having no one fixed form, or conſtant appearance, but are extremely irregular, both as to the variety and diſſimilarity of the ſymptoms, and the manner in which they proceed and go off. This great variety in epidemics happens from hence, that every conſtitution produces diſeaſes conſiderably differing from thoſe of the ſame kind that prevailed in other conſtitutions at another time; which not only holds true of fevers, but of moſt other epidemic diſeaſes. Others irregular.

9. Nor is this all; for there is another ſubtilty of nature ſtill behind, *viz.* that the ſame diſeaſe, in the very ſame conſtitution of the year, frequently

Sect. 1. quently appears in a various and diſſimilar manner, as to the time of its beginning, ſtate, and declenſion; which is an obſervation of ſuch conſequence, as to regulate the indications of cure.

Epidemics either vernal or autumnal

10. Again, it muſt be obſerved, that all epidemics are of two ſorts, *viz. vernal* and *autumnal*, and though they may poſſibly ariſe at a diſtant time of the year, yet they muſt be referred either to ſpring or autumn, accordingly as they approach thereto reſpectively: for ſometimes the temperature of the air conſpires ſo much with an epidemic diſeaſe, as to produce it before its time; and, on the other hand, it ſometimes oppoſes it ſo much, as to make it appear later, even in perſons diſpoſed to receive it. When, therefore, I ſhall mention ſpring or autumn, I do not preciſely mean the *vernal* or *autumnal* equinox, but take in a wider compaſs.

The courſe of ſome vernal one.

11. Some vernal epidemics appear early, as in *January*, and thence gradually increaſing, come to their ſtate about the vernal equinox, after which they gradually decreaſe, and at length diſappear about the ſummer ſolſtice, except, perhaps, in a very few inſtances. Of this kind I reckon the meaſles, and vernal tertians, which, though they riſe ſomewhat later, as in *February*, do likewiſe diſappear near the ſummer ſolſtice; whilſt others, riſing in the ſpring, and daily increaſing, come not to their ſtate till about the autumnal equinox, after which they gradually decreaſe, and vaniſh at the approach of winter. Of this kind are the plague and the ſmall-pox, in thoſe years when either of them is the principal diſeaſe of the year.

The different duration of autumnal epidemics.

12. The *cholera morbus*, which is of the number of autumnal epidemics, riſes in *Auguſt*, and finiſhes its courſe in a month; though there are other

other diſeaſes which ariſe at the ſame time, and run on to the winter; as autumnal dyſenteries, tertians, and quartans; all which, however, notwithſtanding the longer or ſhorter ſpace they ſometimes affect a few particulars, generally ceaſe in two months. Chap. 2.

13. *As to fevers in particular*,* it muſt be obſerved, that the greateſt part of them which are of the continued kind, have hitherto no names aſſigned them, as they depend upon the influence of a general conſtitution or ſtate of the air; but the names whereby they are diſtinguiſhed, are derived from ſome remarkable alteration made in the blood, or ſome other apparent ſymptom; whence they are called *putrid*, *malignant*, *pete-* Names of epidemic fevers, whence to be taken.

* *As to fevers in particular, &c.* The names given to fevers at preſent, are derived from different principles; but firſt, generally according to their type or form, which is deſcriptive of the mode of their progreſs, and divided into various ſpecies, agreeable to what is thought their peculiar nature; as continued, remittent, intermittent, of which ſome are inflammatory, nervous, putrid, exanthematous, hectic, &c.: but how they are to be denominated from the conſtitutions of the air, which are ſuppoſed to produce them, and which, according to our author's own account, are inexplicable, is not eaſy to be conceived: perhaps the preſent diviſion might be advantageouſly altered, were fevers to be named according to the affection of one part of the ſyſtem predominated over the other; *exempli gratiâ*—where irritability in the veſſels took place moſt perceptibly, thoſe fevers ſhould be ſtiled *vaſcular*; where the nerves were more viſibly affected, *nervous*; where the affections equally combined, *mixed*; or as the affection tended more to one than to another, *nerveo-vaſcular*, or *vaſcula-nervous*;—Under which general heads, particular ſpecifications might be properly claſſed. Hence, we ſhould be led to the parts immediately affected, underſtand the nature of the affection, and be directed with more certainty in our practice; and from ſuch clearneſs and preciſion, the younger practitioners avoid thoſe fatal errors into which they are too apt to fall. *W.*

chial,

Sect. 1. *chial, &c.* But as almoſt every conſtitution, beſides the fevers it produces, eminently favours ſome remarkable epidemic diſeaſe, as the plague, ſmall-pox, dyſentery, *&c.* I ſhould think that theſe fevers ought to derive their names from the conſtitution, as this tends more peculiarly to produce ſome one of theſe remarkable diſtempers, at the time they appear, rather than from any alteration of the blood, or particular ſymptom; both which may equally accompany fevers of different kinds.

Intermittents, how diſtinguiſhed.

14. Intermittents, indeed, derive their names from the interval of two fits, and by this mark are ſufficiently diſtinguiſhed, provided regard be had to the two diviſions of the year wherein they happen, *viz.* ſpring and autumn. And yet ſometimes fevers are of the true nature of intermittents, without any viſible ſign to diſcover them by. So when autumnal intermittents enter and appear early, as in *July*, they do not preſently aſſume their genuine form, as vernal intermittents generally do, but ſo far reſemble continued fevers in all reſpects, as not to be diſtinguiſhed, without a very ſtrict examination; but at length, when the force of the prevailing conſtitution is a little weakened, they appear more genuine, and at the cloſe of autumn, quitting their diſguiſe, plainly manifeſt themſelves to be intermittents either of the tertian or quartan kind, as they really were from the firſt; *but if this be not carefully attended to,** phyſicians will be deceived to the

Autumnal ones ſometimes appear as continued.

* *But if this be not carefully attended to, &c.* In this obſervation there is more nicety than uſe; for if fevers of the intermittent claſs ſo far put on the appearance of thoſe of the continued type, as ſcarce to be diſtinguiſhable, why may they not as ſuch be treated? For by theſe means they may

the diſadvantage of their patients, by taking ſuch kinds of intermittents for true continued fevers. Chap. 2.

15. *Again it muſt be carefully remarked,** that as many of theſe diſeaſes appear in the ſame year, ſome one or other of them rules over the reſt, which rage leſs at the ſame time; ſo that this one increaſing, the others decreaſe, and this diminiſhing, the others ſoon re-appear. And thus they prevail by turns, according as each is favoured by the diſpoſition of the year, and the ſenſible qualities of the air; and that diſtemper which rages moſt violently about the autumnal equinox, gives its name to the conſtitution of the whole year: for whatever diſtemper then prevails over the reſt, will eaſily be found to preſide over them during that year; and to the diſpoſition thereof all the then reigning epidemics accommodate themſelves, ſo far as their nature permits.

Some one epidemic uſually prevails over the reſt, to the nature of which the reſt approach.

16. Thus, for example; when the ſmall-pox prevails much, the fever of that year, which is leſs general, plainly partakes of the ſame inflammatory nature therewith; ſo that both diſtem-

Inſtanced in the *ſmall-pox* and *dyſenteries*.

may be cured, particularly if they be of the tertian claſs; or ſooner alter their form into thoſe which are more eaſily conquered; for in proportion as continued fevers approach nearer to intermittents, ſo much is the danger leſſened, and indicates, that nature, though not ſtrong enough totally to ſubdue the fever immediately, is not likely to fall in the conteſt, but may be more readily and certainly aſſiſted by judicious management. *W.*

* *Again it muſt be carefully remarked, &c.* To what is here laid down, we ſhould always attend; for it is founded on truth, and perpetually manifeſted to obſervation, and may ſerve in a great degree to regulate our practice; for certainly all febrile affections which have no known or certain cauſe, partake of the nature of the reigning epidemic, as SYDENHAM has elegantly explained in the ſucceeding paragraph. *W.*

pers

Sect. 1. pers begin after the ſame manner, and are attended with a great ſimilarity of the moſt peculiar ſymptoms, as manifeſtly appears from the great tendency to ſpontaneous ſweats, and the diſcharge of *ſaliva* in both; and they only differ in the eruption of the puſtules, and whatever depends thereon. Again: when dyſenteries are the principal raging diſeaſe of the year, the fever of the ſame year bears great reſemblance to the nature; excepting only that, in a dyſentery, the morbific matter is diſcharged by ſtool, with a few ſymptoms thereon depending; for they both attack in the ſame manner; and in both caſes *Apthæ*, and the like ſymptoms, are equally apt to appear, and indeed the dyſentery we ſpeak of, is the very fever itſelf, with this particularity, that it is turned inwards upon the inteſtines, and diſcharges itſelf that way.

Prevailing epidemics checked by the coming in of winter.

17. But it muſt be remarked, that this principal epidemic which rages about the autumnal equinox, and lays all waſte before it, is checked upon the coming in of winter; whilſt, on the contrary the lower claſs of epidemics, ſubſervient, as it were, to that principal one, now chiefly rage, till the ſaid reigning diſtemper of the year again prevails, breaks their force, and aboliſhes their very name.

All epidemics of one conſtitution produced by one common general cauſe.

18. Laſtly, it muſt be obſerved, that whenever any conſtitution produces various ſpecies of epidemics, all theſe ſpecies differ in kind from thoſe which have the ſame name, but are produced in another conſtitution. But how many peculiar ſpecies ſoever ariſe in one and the ſame conſtitution, they all agree in being produced by one common general cauſe, *viz.* ſome peculiar ſtate of the air; and conſequently how much ſoever

ever they may differ from one another in appear- Chap. 2.
ance, and ſpecific nature, yet the conſtitution common to them all works upon the ſubject-matter of each, and moulds it to ſuch a ſtate and condition, that the principal ſymptoms (provided they have no regard to the particular manner of evacuation) are alike in all; all of them agreeing in this circumſtance, that they reſpectively grow mild or violent at the ſame time. It is farther to be noted, that in whatever years theſe ſeveral ſpecies prevail at one and the ſame time, the ſymptoms wherewith they come on are alike in all.

19. Hence we may ſee how very various and ſubtile a method nature uſes in producing diſeaſes, which no one, I conceive, has hitherto traced in proportion to the dignity of the ſubject; and it appears from this ſhort account, that as the ſpecific differences of epidemic diſtempers, eſpecially fevers, *depend upon the ſecret conſtitution of the air*,* that thoſe perſons labour unprofitably, who deduce the cauſes of different fevers from the morbific matter gradually collected in

The cauſes of fevers, whence to be derived.

* *Depend upon the ſecret conſtitution of the air, &c.* It ſhould ſeem poſſible, by a ſet of well adapted experiments accurately made, to diſcover what are uſually called the occult qualities of the air, ſo frequently mentioned by our author, and rendered them manifeſt to the ſenſes. And, if by this means, we could come at a tolerable knowledge of the effluvia, ſalts, and other heterogeneous matters, wherewith the air at different times, and in different countries, is replete, it might give us almoſt a complete knowledge of the nature of all epidemic diſeaſes that may ariſe for the future, provided due attention be given at the ſame time to the age, ſex, conſtitution, manner of living, &c. of the patient; all which circumſtances being carefully conſidered, and compared together, might probably direct to rational, fixed, and effectual methods of cure.

The

Sect. 1. in the body; *for it is evident that if any man in perfect health,** ſhould remove to any part of our own country where an epidemic diſeaſe rages, he might in a few days be ſeized with it, though it is ſcarce credible that any manifeſt alteration ſhould be made by the air in the juices of the ſame perſon, in ſo ſhort a time.

The proſecution of this ſubject, by experiment, and not by way of conjecture, or hypotheſis, is ſurely worthy the notice of all ſuch as have leiſure and abilities for the undertaking; ſince very conſiderable advantages will accrue to mankind when once a hiſtory of this ſort ſhall be in ſome meaſure completed. The excellent Mr. *Boyle* has made great advances herein, and laid down the methods that ſhould be followed, in order to ſucceed in the attempt.—See Dr. Shaw's *Abridgement of his Works, in* 3 *vols.* 4to; Arbuthnot *on Air*; *Dr.* Hales's *Statical Experiments, and* Huxham *de Aere et Morb. epidemicis.*

* *For it is evident, that if any man in perfect health, &c.* This appears to be a ſtrong proof, that epidemic diſeaſes produce their effects on the conſtitution, not from the alteration of the blood or humours, ſo much as from affections of the vaſcular or nervous ſyſtem; for we know that fear will have ſimilar conſequences. The ſemina morbi will lie dormant in the conſtitution, and circulate through the maſs of fluids, without being capable of cauſing any perceptible change in the habit; for people will live together in the ſame ſtate of air, in the ſame habitation, feed on the ſame viands, &c. with others epidemically affected, and ſtill remain perfectly free from all appearance of diſeaſe. This muſt certainly be owing to a want of conſtitutional prediſpoſition, ſo neceſſary before the machine can become ſenſible, or experience effects to be produced by the action of the morbid miaſmata: but let them change the air, or be operated upon by fear, they will very often fall ſuddenly into the reigning malady. It cannot be ſuppoſed that the blood and humours can ſuffer ſuch inſtantaneous changes; the conjecture is improbable: but we have many proofs of the ſenſible parts of the ſyſtem being immediately acted upon, and there is ſcarce a doubt but that this action is the cauſe of that prediſpoſition requiſite for the production of the complaint. *W.*

20. *Nor*

Chap. 2.

20. *Nor is it leſs difficult to lay down general rules* * for the cure of theſe fevers, or to fix certain limits for practice. Under ſo much darkneſs and ignorance, therefore, my chief care, as ſoon as any new fever ariſes, is to wait a little, and proceed very ſlowly, eſpecially in the uſe of powerful remedies; in the mean time carefully obſerving its nature and procedure, and by what means the patient was either relieved or injured; ſo as ſoon to embrace the one, and reject the other.

Difficult to lay down a general method of cure.

21. In ſhort, to reduce all the ſpecies of epidemics into claſſes, according to the variety of their appearances, to explain their peculiar ſigns, and point out a proper method of cure for each, is a very difficult taſk, and requires much time; and as they ariſe in no ſtated order of years, (at leaſt this is not yet diſcovered) to procure a juſt collection of obſervations about them, would perhaps require more than the life of any one phyſician; yet this taſk, how difficult ſoever, muſt be performed, before it can be juſtly ſaid we have done any thing conſiderable towards diſcovering the intricacy of theſe diſorders.

Epidemics not eaſily claſſed and explained.

22. But how ſhall we give an account of the diſtinct ſpecies of epidemics, which not only, ſo far as appears, ariſe fortuitouſly, but alſo continue of the ſame kind for a ſingle year, or ſome certain ſeries of years; but in another year differ from each other ſpecifically? The beſt

Beſt diſtinguiſhed by deſcribing them.

* *Nor is leſs difficult to lay down general rules, &c.* Might not a due regard to the preceding and the then reigning manifeſt temperature of the air, the manner of living, conſtitution, age, and ſex of the patient, together with a ſtrict attention to the firſt ſymptoms of any epidemic fever, enable the phyſician to proceed with greater certainty in the method of cure, than our author ſeems to judge poſſible?

Sect. 1. method I can pitch upon is that which deſcribes them thro' a competent number of years, in the ſame order in which they happened; and to do this at preſent, according to my ability, I will here deliver the hiſtory and cures of thoſe epidemics which raged from the year 1661, to 1676, *viz.* the ſpace of 15 years; and this according to the moſt accurate obſervations I have been able to make; for it ſeems to me impoſſible to do any thing to this purpoſe by endeavouring to aſſign their cauſes, as derived from the manifeſt qualities of the air; or from any particular indiſpoſition in the blood and juices, unleſs ſo far as this may depend upon a ſecret influence of the air. And it would be ſtill more impoſſible to ſet down the ſpecies of various epidemics, as ariſing from ſome ſpecific alteration of the air, however eaſy this might ſeem to thoſe who can affix the names of fevers to ill-formed notions, from the ſpeculation of ſuch alterations as may happen in the blood or juices by any particular degeneration of principles. By this means, indeed, whilſt we depart from nature, which is always the beſt guide, and indulge ourſelves the liberty of conjecture, we may make as many ſpecies of diſeaſes as we pleaſe; though at the ſame time we take ſuch a liberty as no one would eaſily grant to a botaniſt, who, in writing the hiſtory of plants, is obliged to abide by the teſtimony of the ſenſes, and not indulge his talent at conjecture, however excellent he may be therein.

23. *I preſume not here to deliver any thing perfect,** not even in enumerating the whole claſs of

* *I preſume not here to deliver any thing perfect, &c.* However ſanguine may have been our author's hopes of having

of epidemics; much leſs will I anſwer for it, Chap. 2.
that the diſeaſes I mention, as following one another in the order I ſet them down, ſhall keep the ſame order hereafter. The thing I endeavour, is to ſhew, by the aſſiſtance of a few years obſervations, how this matter ſtood lately with reſpect to my own country, and the city wherein I live, in order to aſſiſt in beginning a work that, in my judgement, will greatly tend to the advantage of mankind, when, at length, it ſhall be finiſhed by poſterity, and the

having it proved, that epidemics preſerve a regular ſucceſſion, we find no proofs have been yet brought in the leaſt to confirm his conjecture: it is rather to be feared there is no real foundation to build upon; eſpecially when we reflect on the amazing variability of the air in this climate, as well as the ſudden changes it undergoes; inſomuch, that in one day we ſhall often experience its ſenſible qualities repeatedly altered with regard to its gravity, or levity, cold, heat, moiſture, dryneſs, and elaſticity. Were the ſeaſons to preſerve any uniformity in the ſtates of the air, ſomething of this ſort might be ſuſpected, as different ſtates are, it is known, productive more of one diſeaſe than another; and theſe are rendered more or leſs violent and dangerous according as the air is more or leſs calculated to increaſe or leſſen their activity.

In an atmoſphere ſo fluctuating as our's it is a vague idea, and may be productive of much miſchief, to think of treating the ſame diſtemper differently, as the different conſtitutions of the air are more prevalent.

The only rational mode is, to conſider the ſymptoms conjunctly with the conſtitution, age, ſex, mode of living, &c. of the patient, and to regulate our treatment, be the epidemic of what nature it will, conſiſtent with the inferences from thence to be drawn: the ſymptoms ſhould be our index to direct us to the immediate cauſe of the diſeaſe againſt which we are to militate; and the conſtitution of the air may be conſidered as a remote, or conjunct cauſe, aſſiſting to lead us to that more immediate, but ſhould not be by any means permitted ſolely to influence our practice. *W.*

Sect. 1. whole ſeries of epidemics be exhibited to view, as they ſhall ſucceed each other for the future.

CHAP. III.

The epidemic Conſtitution of the Years 1661, 1662, 1663, 1664, *at* London.

The tertian of this conſtitution deſcribed;

1. THE autumnal intermittent fevers which had reigned for ſeveral years backwards, appeared with new force in the year 1661, eſpecially a bad kind of tertian, about the beginning of *July*, which continually increaſed ſo as to prove extremely violent in *Auguſt*, ſeizing almoſt whole families in many places with great devaſtation; after which it gradually decreaſed upon the coming on of the winter, ſo as to appear ſeldom in the month of *October*. The ſymptoms that attended theſe tertians differed from thoſe of the intermittent tertians of other years, chiefly in the following particulars: (1.) the fit was more ſevere; (2.) the tongue was more black and dry; (3.) the intermiſſion between the fits not ſo manifeſt; (4.) the loſs of ſtrength and appetite greater; (5.) a greater tendency to a double fit; (6.) all the concomitants, in ſhort, more violent; (7.) and the diſeaſe itſelf more mortal than intermitting fevers uſually are; (8.) when it happened in perſons aged, or of a bad habit of body, where, beſides, either bleeding or any other evacuations had diminiſhed the ſtrength, it would continue for two or three months.

followed by a continued fever,

2. A few quartans accompanied theſe tertians, but both of them went off upon the firſt coming

ing on of winter, (for they ſeized upon none that were unaffected by them before) and were followed by a continued fever, differing from the nature of autumnal intermittents only in this; that *they* happened at ſtated times, but *this* without intermiſſion; for they both ſeized almoſt in the ſame manner, and thoſe that were violently attacked with either, had a vomiting, dryneſs of the external parts, thirſt, and blackneſs of the tongue: ſweats alſo, towards the end of the diſtemper, readily diſcharged the morbific matter in both caſes. Chap. 3.

3. And it may even from hence appear that this fever belonged to the claſs of autumnal intermittents, becauſe it very rarely ſhewed itſelf in the ſpring. This continued fever, therefore, appeared to me a kind of compendium of the intermittent; as, on the other hand, each ſingle fit of the intermittent was a kind of compendium of the continued fever. The difference between them conſiſted chiefly in this, that the continued fever finiſhed its period of effervescence all at once, in the ſame conſtant courſe; but the intermittent, by fits, at different times. reſembling the foregoing intermittents.

4. How long this continued fever had prevailed, I cannot ſay, having been hitherto ſufficiently employed in obſerving the general ſymptoms of fevers, and not yet finding that fevers might be diſtinguiſhed, with regard to the various conſtitutions of different years, or the different ſeaſon of the ſame year. This, however, I know, that there was only one ſpecies of continued fevers to the year 1665, and that the autumnal intermittents, which were frequent to that year, appeared afterwards very rarely. Only one ſpecies of a continued fever from 1661 to 1665.

Sect. 1.

The order of the epidemics of this conſtitution.

5. The above-mentioned tertian fever, which ſpread very wide in 1661, as was ſaid above, contracted itſelf in the ſucceeding year; for, in the following autumns, quartans prevailed over the other epidemics, during this conſtitution of the air. As the quartans always grew milder after the autumn, the continued fever, which appeared more rarely during all this time, now raged more violently, till the ſpring, when vernal intermittents ſucceeded, which alſo going off at the beginning of *May*, the ſmall pox appeared a little, but diſappeared again upon the coming in of the autumnal epidemics; *viz.* the continued fever and quartans, which then reigned. In this order did the epidemic diſeaſes appear and ſucceed each other, during this whole conſtitution of the air; of which I am now to treat in particular, eſpecially of the continued fever, and intermittents, whether vernal or autumnal, theſe being the chief diſtempers of this conſtitution.

This continued fever, of a capital kind;

6. I begin with this continued fever, which appears to me of a more capital kind than any of the reſt; becauſe nature here brought the febrile matter to a due concoction, and expelled it when concocted, in a limitted time, more uniformly and regularly, than in any other fever. Moreover, as thoſe conſtitutions of the year which favour autumnal intermittents return more frequently, taking one year with another, than ſuch as produce other epidemics, it follows that the continued fever attending intermittents occurs oftener than any other continued fever.

Occurs oftener than the reſt.

7. Beſides the ſymptoms which accompanied other fevers, the preſent fever had theſe in particular, *viz.* (1.) a great faintneſs, (2.) vomiting,

ting; (3.) a dry and black tongue; (4.) great and ſudden loſs of ſtrength; (5.) a dryneſs of the external parts; (6.) the urine conſtantly either turbid or thin, both of them here equally ſigns of crudity; (7.) a looſeneſs in the decline, unleſs the phyſician happened to ſtop it at firſt, whereby the diſeaſe was prolonged, and rendered more obſtinate; (8.) but in its own natural courſe it ſcarce laſted above fourteen, or one and twenty days, when it went off, with a ſweat, or rather a gentle moiſture; (9.) nor did any proper ſigns of concoction appear before in the urine; but at this time there generally did. Chap. 3. Its ſymptoms.

8. Other ſymptoms alſo aroſe when this diſtemper was unſkilfully treated; however, as not only theſe, but the nature of the diſtemper itſelf will more clearly appear from the particular method which I formerly adapted to this fever, I ſhall here ſet it down, as it was then publiſhed: at leaſt as far as it regards the preſent purpoſe; *though at that time I was not aware of there being any other ſpecies of fever in nature.**

* *Though at that time I was not aware, &c.* SYDENHAM has been accuſed of engaging in the practice of phyſic without any preparatory ſtudy, or previous knowledge of the medicinal ſciences; and indeed from Dr. Swan's tranſlation of the latter part of this ſentence, one would almoſt be led to believe the aſſertion juſt; or that he totally diſregarded the opinion of the antients; but the fault ſeems to reſt with the tranſlator—SYDENHAM's words are: "*quo quidem tempore* NONDUM MIHI INNOTUERAT, *aliam aliquam febris ſpeciem in rerum naturæ inveniri*; which do not imply that he was not *aware* of there being any other ſpecies of fever in nature; but that no other ſpecies of fever had yet come under his obſervation—at which time he had not yet *known*; experience had not yet taught him, that any other ſpecies of fever was to be found in nature; not that he did not ſuſpect there were other fevers. *W.*

CHAP. IV.

The continued Fever of the Years 1661, 1662, 1663, 1664.

Final cause of the commotion of the blood in this fever.

MY first observation is, *that the irregular commotion raised by nature in the blood,** either as a cause or concomitant of this fever, is excited in order to separate from it a certain heterogeneous matter contained therein, and prejudicial thereto: or else to change the blood itself into a new state.

2. And

* *That the irregular commotion raised in the blood, &c.* This idea of the proximate cause of fevers, founded on the doctrine of humoral pathology, seems to influence our author in all his reasoning on fevers, and their modes of cure. But this doctrine has been very justly exploded; for which great praise is due to HOFFMAN; who has favoured the world with his opinion relative to fevers being formed by spasms, and atony: which idea has been farther improved by Dr. Cullen, who gives us his doctrine of fevers in the following explicit terms, and which is now almost universally adopted.

"The remote causes of fever," says the Doctor, "are "certain sedative powers applied to the nervous system, "which diminishing the energy of the brain, thereby "produce a debility of the whole of the functions, and par- "ticularly on the action of the extreme vessels; such, how- "ever, at the same time is the nature of the animal œco- "nomy, that this debility proves an indirect stimulus to "the sanguiferous system; whence by the intervention of "the cold stage, and spasm connected with it, the action "of the heart, and larger arteries, is increased, and conti- "nues so till it has had the effect of restoring the energy "of the brain, of extending the energy to the extreme "vessels, of restoring therefore their action, and thereby "especially overcoming the spasm affecting them; upon the "removing of which the excretion of sweat and other

"marks

2. And here I rather chuſe to make uſe of the general word *commotion* than *fermentation* or *ebullition*; in order to prevent all fruitleſs diſpute about words, that might ariſe from the uſe of thoſe, which, though they may ſeem harſh and metamorphical to ſome, are capable of a commodious interpretation. For, though the commotion of the blood in fevers does at different times reſemble the fermentations and ebullitions of vegetable liquors; yet there are thoſe who think this commotion very different from both in more reſpects than one. For example, ſay they, fermenting liquors acquire a vinous nature, ſo as to afford an inflammable ſpirit by diſtillation, and to be eaſily turned into vinegar, which yields an acid ſpirit by the ſame treatment; yet neither of theſe changes have been

Chap. 4.

The term *commotion* preferred to *fermentation* or *ebullition*.

" marks of the relaxation of the excretories take place:" *Practice of Phyſic, Vol. I. page* 102. " Hence the idea of " fevers may be, that a ſpaſm of the extreme veſſels, how- " ever induced, proves an irritation to the heart and arte- " ries, and that this continues till the ſpaſm is relaxed or " overcome; but whether it be directly produced by the " remote cauſes of fever, or be only a part of the vis me- " dicatrix naturæ remains to be determined."—He is of the latter opinion, and aſſigns the following reaſons:

" Becauſe, in *the firſt place*, while it remains ſtill certain " that debility lays the foundation of fever, it is not ob- " vious in what manner the debility produces the ſpaſm; " and what ſeems to be its effect, the increaſed action of " the heart and arteries: and *ſecondly*, becauſe in almoſt all " the caſes in which an effort is made by the vis medicatrix " naturæ, a cold fit, and a ſpaſm of the extreme veſſels are " almoſt always the beginnings of ſuch an effort." — See Sect. 41, 42. of the ſame chapter.

Hence then when SYDENHAM ſpeaks of commotion, ebullition, or fermentation in the blood, and what he gives to calm or quiet theſe motions, we ſhould advert to the increaſed action of the vaſcular ſyſtem, and attempt to apply ſuch remedies as will properly regulate their motions. *W.*

hitherto

Sect. 1. hitherto obſerved of the blood. Again, fermentation and depuration are both carried on at one and the ſame time in vinous liquors; whereas the depuration of the blood in fevers does not accompany but follow the analagous operation; as appears even to the eye, by the ſolution of a fever-fit by ſweat.

Ebullition eſteemed the improperest term.

3. As to ebullition, this analogy, they ſay, is ſtill more harſh, and, in many caſes, contrary to experience, where the commotion of the blood is too gentle to deſerve the title of ebullition. But not to engage in theſe controverſies, ſince the terms *fermentation* and *ebullition* have prevailed among the modern phyſicians, I likewiſe have not ſcrupled to uſe them occaſionally, meaning only to convey my thoughts more eaſily thereby. Moreover, *that this febrile commotion of the blood is raiſed by nature*,* in order to ſeparate an heterogeneous and noxious matter, appears from eruptive fevers, in which an excrementitious matter, of a vitiated quality, that lay concealed in the blood, is, by means of the ebullition, thrown out upon the ſkin.

4. Nor is it leſs clear to me that a febrile commotion of the blood often tends only to introduce a new ſtate of that fluid, and that a man whoſe blood is pure and untainted may be ſeized with a fever; for fevers frequently appear in

* *That this febrile commotion of the blood is raiſed, &c.* In eruptive fevers the diſorders of the pulſe go off entirely, or abate very much upon the eruptions appearing freely: but here a very different doctrine takes place. This happens from the ſyſtem being freed from the active ſtimulus, and from the ſpaſm of the ſmall veſſels being taken off, ſo that the morbific matter is allowed to be thrown out of the habit; depoſited upon the ſkin in part, and in part to eſcape by the cuticular pores. *W.*

healthy

healthy bodies, *where there was before no previous indiſpoſition, either from a plethora, cachexy, or tainted air*,* that could give riſe thereto. Yet even in theſe caſes, upon ſome remarkable preceding change of the air, diet, and others of the non-naturals, a fever preſently ariſes, upon account of the blood's affecting a new ſtate, or diſpoſition, ſuch as this air and diet require, and not becauſe the irritation of vitiated particles, latent in the blood, brings on the fever. Though I make no queſtion but the matter regularly diſcharged in the diſpumation of the blood, after the febrile commotion, may prove vitiated, though the blood before was healthy: which is not more ſtrange, perhaps, than that ſome parts of our food ſhould become corrupt and fetid, Chap. 4.

* *Where there was before no previous indiſpoſition, &c.* Why it ſhould be ſuppoſed that a fever is to be raiſed, where there appears no cauſe to induce or require it, merely to produce a change in the blood, which is allowed to want no change, is a mode of reaſoning not eaſily comprehenſible. That it does happen frequently muſt be allowed; but the purpoſe here aſſigned ſeems merely ſpeculative; and framed more from hypotheſis than rational principles: totally neglectful, or totally ignorant of primary, nervous, and vaſcular affection, our author was at a loſs to aſſign any other cauſe, but what was conſiſtent with the pathology of his day; and to this muſt we attribute the error. If we for a moment think of the cauſes allowed to produce fever, we ſhall be convinced of the ſuperiority of the preſent theory to thoſe of former times. Marſh miaſmata, or human effluvia, are conſidered as the moſt common ſources, theſe might be ſuppoſed to occaſion ſanguinary commotion; but beſides theſe, cold, fear, exceſs in venery, intemperance in drinking, and other circumſtances which evidently weaken the ſyſtem, and from that ſource produce the ſame effects, ſtrikingly corroborate the idea of vaſcular and nervous affection, independent of any contamination of the fluids; though they may incur a degree of morbid acrimony by the continuance of the febrile cauſes ſpecified. *W.*

after

Sect. 1. after having undergone a remarkable alteration in the body, and suffered a separation from the rest.

The commotion of the blood to be duly regulated.

5. *With regard to this disease*, I judge that *the genuine indications are*,* to keep the commotion of the blood within such bounds as suit the design of nature, so as to prevent its rising too high on the one side, whence dangerous symptoms might follow; or sinking too low on the other, whereby either the exclusion of the morbific matter might be hindered, or the endeavour of the blood affecting a new state be frustrated. And hence, whether the fever be owing to the irritation of any heterogeneous matter, or to the blood's attempting a new change, the indication of the distemper will, in either case, be the same, and upon this foundation I proceed to the cure in the following manner.

Bleeding where prejudicial.

6. *When the blood is weak, as it generally is in children, or wants its due proportion of spirit, as in declining age, or even in young persons worn out by*

* *The genuine indications are, &c.* If we were to confide in SYDENHAM's theory, these indications are right; but as that is rejected, the indications will of course be different. In the first place, therefore, we are to endeavour, *to moderate the violence of re-action*; in the second, *to remove the causes, or obviate the effects of debility*; and in the third, *to obviate or correct the tendency of the fluids to putrefaction.* Cullen's Practice of Physic, Chap. VI. sect. i. part 126. All which seem to be effected by the mode of cure here laid down in a great measure; and is a proof, as Dr. Swan observes, that SYDENHAM formed his theory after he had determined his practice, and to that made it conform. The safest mode, certainly, of constituting all theoretical notions; as it is much better to err in our reasoning from facts, than deduce a practice from opinions which may be fallacious, and become the source of innumerable, and lamentable mischiefs. *W.*

a lingering

a lingering illneſs, I refrain from bleeding:* Otherwiſe the blood, being already too weak even without taking any of it away, might prove abſolutely unequal to the buſineſs of deſpumation; whence the whole maſs becoming corrupted, death might eaſily enſue. Thus a haſty check can ſcarce be put to the fermentation of wine, without injuring the liquor: for nature cannot bear the corrupt particles ſhe has once begun to throw off, which though they were pure, whilſt equally mixed with the blood, now ſtrongly tend to taint the reſt of the juices. I am well aware, however, that where bleeding has been imprudently uſed, the patient may be ſometimes ſaved by means of proper cordials, and the blood reduced to a proper temper for performing the neceſſary deſpumation: but prevention is better than cure. Chap. 4.

* *When the blood is weak, &c.* By this is meant, I preſume, when the blood is looſe in its texture; for bleeding will greatly contribute to render it leſs firm, and diſpoſe it to run too rapidly into a ſtate of putrefactive acrimony, beſides weakening the ſyſtem, and greatly debilitating the powers of nature. But what is to be underſtood by its wanting a due proportion of ſpirits, I cannot divine; it can never be perceptible to the ſenſes. *W.*——Old perſons ſeem to bear bleeding better than either of the others. However, the practical doctrine here delivered is very good: only it would have been much eaſier, and more ſatisfactory to have founded it upon experience, or at leaſt upon obvious reaſons immediately reſulting from thence. Thus in children, and perſons exhauſted by a preceding diſeaſe, the quantity of red blood is leſs in proportion to the quantity of the other fluids, than in robuſt and grown perſons; neither do their relaxed veſſels compreſs the fluids ſo ſtrongly, and turn them into red blood ſo faſt. They cannot, therefore, ſupport the loſs of red blood ſo well.

7. *When*

Sect. 1.

Bleeding, where ſervicable.

7. *When the blood happens to be of a contrary diſpoſition,** as it uſually is in young perſons of a ſtrong and ſanguine habit, I eſteem bleeding the firſt ſtep to the cure, and not to be omitted without danger, except in the caſes hereafter mentioned; for without it, not only deliriums, phrenſies, and the like diſorders from inflammation might ariſe from too great an effervescence of the blood, but alſo the circulation might be obſtructed, or the whole maſs, in a manner, ſtagnate from its exceſs in quantity.

In what proportion to be uſed.

8. *As to the proportion, I uſually take away*† no more than I conceive may prevent thoſe incon-

* *When the blood happens to be of a contrary diſpoſition, &c.* By this is meant, where an inflammatory diatheſis is prevalent; by which we underſtand a ſtrong tone of the vaſcular ſyſtem, and too firm a texture of the ſanguinary maſs; for under theſe circumſtances there ſcarce can be any fever where bleeding is not requiſite, and in a vaſt variety of caſes, almoſt all, the omiſſion would be an unpardonable error, which cannot be compenſated by any means during the whole courſe of the diſeaſe. But great care is neceſſary to be certain in diſtinguiſhing when ſuch a ſtate of the blood and vaſcular ſyſtem do actually exiſt; which will be diſcoverable by a quick, tenſe, full, hard, and frequent pulſe; great heat; pains in the head, and different parts, all which indicate too violent re-action of the ſyſtem; otherwiſe bleeding may occaſion too great debility, and increaſe the danger. ——There ſeems here an obvious defect, a deſcription of the diſtemper by a regular detail of the ſymptoms is wanting, which ought to have been premiſed, as obſerved by Dr. Swan. *W.*

† *As to the proportion I uſually take away, &c.* This ſhould be adapted to the ſtrength of the patient, and urgency of the ſymptoms. The quantity ſhould be only in ſuch a proportion as the conſtitution can bear without ſuffering any inconvenience, and at the ſame time may ſerve to alleviate the oppreſſive ſymptoms; "For ſhould the evacuation be greater than is neceſſary, it may occaſion a ſlower recovery, render the perſon more liable to a relapſe, or bring on other diſeaſes." Cullen's Practice of Phyſic, page 191. ſect. 1. §. 140. *W.*

veniencies,

veniencies, which, as we ſaid above, might proceed from an immoderate commotion of the blood; afterwards regulating the degree of heat, by repeating or omitting bleeding occaſionally, together with the free or ſparing uſe of warm cordials, and laſtly by the uſe of laxatives or aſtringents, as I obſerve the commotion to prevail or languiſh. Chap. 4.

9. *After bleeding, where it was neceſſary,** I carefully inquire *whether* the patient has had any vomiting or retching at the beginning of the fever; and if he has, I order an emetic, unleſs the tender age, or ſome remarkable weakneſs A vomit, where neceſſary and where not.

* *After bleeding, where it was neceſſary, &c.* The neceſſity of an emetic is here clearly pointed out; as ſickneſs, vomiting, and retching may be immediately owing to ſome foulneſs lodged in the ſtomach; which may be uſeful in the firſt inſtance by removing thoſe affections occaſioned by offenſive matter loading that organ; preparing the way for the efficacy of future medicines, conſidering alſo the effect of ſympathetic action upon the other parts of the machine becoming more certain, and determining the fluids to the ſurface of the body.——

"Vomiting," ſays Dr. Cullen, "is uſeful in fevers in "many reſpects; as it evacuates the contents of the ſto"mach; as it emulges the biliary and pancreatic ducts; "as it evacuates the contents of the duodenum, and per"haps alſo of a larger portion of the inteſtines; as it agi"tates the whole of the abdominal viſcera; expedes the "circulation in them, and promotes their ſeveral ſecretions; "and laſtly, as agitating the viſcera alſo of the thorax it has "the like effects there. And by the particular operation "of emetics upon the muſcular fibres of the ſtomach, they "excite the action of the extreme arteries on the ſurface of "the body, ſo as thereby effectually to determine the blood "into theſe veſſels, remove the atony, and take off the "ſpaſm affecting them." Prac. Phy. p. 218.——Hence the great utility which may be derived from the action of medicines of this claſs in the beginning of acute fevers is indiſputably obvious, however their efficacy may have been diſputed. *W.*

of

Sect. 1. of the patient ſhould contra-indicate. *Where a retching has preceded, a vomit is ſo neceſſary,** that unleſs the humour be expelled, it produces ſeveral other different ſymptoms, not eaſy to be removed in the courſe of the cure, and highly dangerous to the patient. The principal and moſt common of theſe is a looſeneſs, which generally happens in the decline of the fever, if emetics were omitted when they were indicated; for in the progreſs of the diſtemper, when nature has in ſome degree ſubdued the malignant humour in the ſtomach, and thrown it lower, it, by its ſharpneſs, and the conſtant ſupply derived from above, ſo corrodes the inteſtines, that a looſeneſs muſt neceſſarily follow. I have, however, obſerved in ſuch inflammatory fevers, as are commonly called malignant, that though a vomit has been omitted, when retchings at firſt appeared, yet a diarrhœa does not neceſſarily follow, as it did in the preſent: but more of this hereafter.

A looſeneſs happens if not given when required.

But not always in malignant fevers.

* *Where a retching has preceded, a vomit is ſo neceſſary, &c.* Our author imagines that the great uſe of an emetic is the expelling the offenſive humour, whoſe retenſion occaſions a number of miſchievous ſymptoms, particularly a diarrhœa. But this ſhould rather ariſe from determining the flux of humours to the ſkin, and thereby keeping the bowels more free from any ſtimuli, which by crowding inwardly might be occaſioned; particularly when they had, during the continuance of the fever, acquired an irritating acrimony; for it cannot be ſuppoſed that the identical humour which at firſt produced the diſorder ſhould lodge in the ſtomach, notwithſtanding the quantity of liquids and medicines taken during the courſe of the fever, till its decline, in ſuch an unaltered ſtate ſo as to occaſion a looſeneſs: a purge would equally have obviated this difficulty; but we find experience evinces that it is from vomits alone that this diſtreſſing ſymptom is prevented, and when preſent by them chiefly relieved. *W.*

10. Now

10. Now the danger of this diarrhœa lies here, that it farther debilitates the patient, already sufficiently weakened by the disease, and, what is still worse, happens in the decline of the fever, when the blood ought to collect itself, and exert its force to finish the business of despumation, but is hindered by this evacuation. Danger of the looseness.

11. What makes it still plainer, that this humour lodged in the stomach, if not discharged by a vomit, may bring on a looseness afterwards, is that, upon examination, we scarce find any instance of a looseness attending this fever, but where the patient was apt to vomit at the beginning, and an emetic was not given: as, on the other hand, though this inclination to vomit be over, yet the looseness generally stops upon giving a vomit, provided the patient be strong enough to bear it: and I have frequently observed, that upon the coming on of a looseness in this case, astringents, either internally or externally given, have very little, if any force in stopping it. Generally checked by a vomit. Astringents ineffectual.

12. *The emetic I generally used was of this kind.**

* *The emetic I generally used, &c.* The emetics made use of at this day are perfectly free from that danger here complained of, and are exhibited in different modes—ipecacuanha, from twenty to five and twenty grains alone, or joined with a grain, or half a grain of emetic tartar; tartarisated antimony given in such doses as immediately to vomit, or in divided doses till the effect is produced; or a grain, or grain and an half, administered in a perfectly neutralized mixture of kali prepared, and lemon juice two ounces, mixed with six ounces of some simple water, and sweetened with a little syrup. Nor is there any occasion to procrastinate the exhibition, an emetic may be given at any time, the sooner the better, and the operation will be gentle enough if the patient is ordered to take a quart of water gruel, &c. some little time before. *W.*

Sect. 1. A vomiting draught.

Take of the infusion of Crocus metallorum, *otherwise called* vinum benedictum, *six drachms, oxymel of squills, and compound syrup of scabious, each half an ounce: mix them for a vomit.*

I directed it to be given in the afternoon, two hours after a light dinner; and to make it work the safer and better, ordered three quarts, or a gallon of posset-drink to be in readiness, because this kind of emetic is dangerous, unless plentifully diluted; and therefore as often as the patient vomited, or purged, he was directly to take a draught of the posset-drink, by which means griping was prevented, and the vomiting rendered more easy.

Vomiting of admirable service.

13. *When I have happened sometimes carefully to* * examine the matter here thrown up by vomit, and found it neither considerable in bulk, nor of any remarkable bad quality, I have been surprised how it should happen that the patient has been so much relieved thereby: for as soon as the operation was over, the severe symptoms, *viz.* the *nausea*, anxiety, restlessness, deep sighing, blackness of the tongue, *&c.* usually abated, and went off, so as to leave the remainder of the disease tolerable.

* *When I have happened sometimes carefully, &c.* Had SYDENHAM been acquainted with the full effects produced by emetics, his wonder would have ceased; but he seems to have considered them only as evacuating the stomach, and therefore expected to see the res ejectæ either copious in quantity, or much altered in quality from their natural appearance in an healthful state; he was not aware of the sympathetic affections which take place in the constitution, nor knew that an extremely small portion of morbid matter could produce effects so sudden, and surprising, from local action, so as to derange the whole system. *W.*

14. *We*

Chap. 4.

14. *We ſhould not omit, that if the ſtate** of the patient requires both bleeding and vomiting, it is ſafeſt to bleed firſt, and give the vomit afterwards; otherwiſe there would be danger that, whilſt the blood-veſſels are greatly diſtended, the violent motion in vomiting might burſt the veſſels of the lungs, or hurt the brain, and occaſion a vomiting of blood, or a mortal apoplexy: of which I could give ſome inſtances, if it were proper, but my deſign is only to caution.

Bleeding to be firſt uſed, if alſo required.

15. As to the time of giving a vomit, I would have it done at the beginning of the fever, if poſſible, in order to prevent thoſe terrible ſymptoms ariſing from a collection of humours in the ſtomach, and parts adjacent; and thus, perhaps, the diſtemper may be cruſhed in the beginning, which might otherwiſe increaſe, and prove both obſtinate and dangerous, whilſt ſupplied by theſe humours, which, entering into the receſſes of the body, may mix with the maſs of blood, or, growing more corrupt by longer continuance, communicate a malignant quality thereto. We have an inſtance of this in the *cholera morbus*, where, if we ſometimes unſeaſonably endeavour to ſtop the vomiting, either by *laudanum*, or aſtringents, and the attempt ſucceeds, we bring on a no leſs dangerous train

A vomit, when to be given.

Vomiting not to be ſtopped unſeaſonably in the *cholera morbus*.

* *We ſhould not omit, that if the ſtate, &c.* This obſervation ſhould never be forgot, as it is replete with prudence and ſound judgement, founded, we find, on fatal experience; for certainly the danger in giving vomits in plethoric habits, under thoſe circumſtances particularly, is extremely great, and very likely to produce the pernicious conſequences our author has enumerated; reaſon and experience here cooperate in the confirmation. *W.*

Sect. 1. of ſymptoms. For the acrimonious and corrupt humours, which ought, in ſome meaſure to be diſcharged, being by this means detained, exert their force upon the blood, and raiſe a fever, which uſually proves of a bad kind, and is accompanied with dangerous ſymptoms, ſo as ſcarcely to be removed without giving a vomit, even though the patient has then no tendency to ſuch an evacuation.

16. But if, as it frequently happens, the phyſician is called ſo late, that a vomit cannot be given at the beginning of the fever, yet I ſhould judge it proper to give one at any time of the diſtemper, provided the patient is not too weak to bear it. I have ſucceſsfully ordered an emetic on the twelfth day of the diſtemper, even though the ſpontaneous retchings were over; and by this means have ſtopped the looſeneſs that hindered the blood from finiſhing its depuration, and I ſhould not ſcruple attempting the ſame later, if the ſtrength of the patient permitted.

An opiate to be given in the evening.

17. *In the evening, after the operation,** I always endeavour to quiet the diſturbance raiſed in the juices by the emetic, and to procure ſleep; and therefore direct a paregoric draught

* *In the evening after the operation, &c.* Dr. SWAN inveighs againſt the uſe of opiates here, conſidering them as pernicious. If the vomit given ſhould have raiſed much diſturbance in the ſyſtem, I can ſee no reaſon in this caſe why a gentle opiate might not be adminiſtered: Experience had taught our author its uſe; and Dr. MACBRIDE, even after a purge, gives fifteen drops of tinctura opii, with thirty or forty drops of ſpirit of nitrous æther, in any convenient vehicle, as a paregoric; which compoſes the patient, and ſerves to aſſiſt in taking off the general ſpaſmodic conſtriction of the ſmall veſſels, which are conſidered as their immediate cauſe.—*Methodical Introduction to the Theory and Practice of Phyſic*, p. 306. *W.*

to

to be taken at bed-time after the following manner : Chap. 4.

Take of the diſtilled water of red poppies, two ounces ; aqua mirabilis, *two drams* ; *ſyrup of white and red poppies, each half an ounce : mix the whole for a draught.* A quieting draught.

18. *But if there be no danger in raiſing* * too great an efferveſcence in future, either on account (1.) of plentiful bleeding, uſed in the courſe of the cure ; (2.) frequent vomiting or purging upon the uſe of an emetic ; (3.) the preſent diſappearance of the fever ; (4.) its mildneſs ; or (5.) its natural decline ; then inſtead of the draught above ſet down, I give, without apprehenſion, a ſufficiently large doſe of diaſcordium, either alone, or mixed with ſome cordial water : and this is an excellent medicine, provided it be given in a ſuitable quantity. Or a large doſe of *diaſcordium.*

19. Under the article of vomits, we ſhould not omit to obſerve, that it is by no means ſafe, *Vinum benedictum* unſafe in children under fourteen.

† *But if there is no danger of raiſing, &c.* SYDENHAM ſpeaks here with apparent confidence, on the utility of a ſufficiently large doſe of diaſcordium, but has not ſpecified the quantity. If a grain of opium is meant for an adult, the portion of the electarium e ſcordio neceſſary to be given is three drams—a nauſeating doſe indeed ; and I am of Dr. SWAN's opinion in preferring the moderate uſe of a grateful wine, as it would be an efficacious cordial, without the inconveniences attending the other ; and particularly if the caſes here deſcribed, as ſeems probable, ſhould be in that ſtate when the fever was overcome ; for certainly natural reſt, which people are apt to fall into after the febrile receſſion, is much more refreſhing than that procured by opiates : though in ſome delicate conſtitutions, where hyſteric affections, at this period, are apt to take place, or the patients are oppreſſed with grief, or paſs many reſtleſs nights, opiates, by raiſing the ſpirits, and procuring ſleep, are of infinite uſe ; and may, with great ſafety, be had recourſe to, in ſmall quantities. *W.*

Sect. 1. at leaſt in this fever, to give ſuch as are made with the infuſion of *crocus metallorum*, even in the ſmalleſt quantity, to children under the *age of fourteen. It were indeed to be wiſhed, that, inſtead of this emetic,** we had others of a ſafer kind, yet ſo ſufficiently efficacious, as thoroughly to diſcharge the humour, which, in the decline of this fever, generally brings on a looſeneſs; or at leaſt were poſſeſſed of ſome proper remedy for changing or diſſolving this corroſive matter, and blunting its force, ſo as to hinder it from producing a diarrhœa. It has often been a difficulty with me, when called to infants and children in a fever, and obſerving an emetic indicated, whereby they might have been preſerved from danger, that I durſt not give this infuſion for fear of a bad conſequence; but in grown perſons I have hitherto found no ill effect from it, provided it were given with the cautions abovementioned.

* *It were indeed to be wiſhed, &c,* This difficulty is at preſent removed, for either ipecacuanha, or antimonium tartariſatum, in properly proportioned doſes, are given to very young children daily, particularly the latter, without any hazard; but we muſt obſerve, that all looſeneſſes in febrile diſorders ought not to be ſtopped, for they are ſometimes, though perhaps not very commonly, *critical*; if therefore, on their acceſſion, the febrile affections begin to abate, the heat becomes weaker, the pulſe more equable and ſlower, the thirſt leſs troubleſome, the urine foul, or depoſiting a copious ſediment, with a ſoftneſs or gentle moiſture of the ſkin, and an abatement of other concomitant ſymptoms, they ſhould be ſuffered to continue within moderate bounds, and the patient ſupported by nutritive liquid food, and gentle cordials; for checking them altogether ſuddenly might give riſe to the renewal of the miſchief, now in a train to be ſubdued. *W.*

20. When

20. When the affair of vomiting is over, I next conſider, Chap. 4.

(1.) *Whether, notwithſtanding the preceding evacuations,** the blood may not ſtill hurry on ſo faſt as to require a check; or,

(2.) On the other hand, whether it may not languiſh ſo much as to require quickening; or, laſtly,

(3.) Whether the fermentation is now brought to ſuch a proper ſtate or degree, as that it may be ſafely left to itſelf.

Some-

* *Whether, notwithſtanding the preceding, &c.* The three inquiries here ſpecified, according to our preſent theory, ſhould ſtand as follows:

1. Whether the re-action of the ſyſtem ſtill continues ſo violent as to require moderating.

2. Whether debility does not begin to be ſo prevalent as to require ſtimulating.

3. Or, Whether the natural tone, and irritability of the vaſcular and nervous ſyſtem, are in ſuch a proper ſtate or degree, as that they may be ſafely left to themſelves.

Each of which will be pointed out by the ſymptoms to which we muſt have recourſe, as our principal directors.—In the firſt of theſe inſtances SYDENHAM prefers the uſe of glyſters—Dr. SWAN, though he allows this mode very good, ſpeaks in favour of purges, and ſupports that opinion by the authority of Dr. LANGRISH. A purge, ſtronger or weaker, according to the violence of the ſymptoms, their peculiar nature, and the ſtrength of the patient, is in general greatly to be preferred; for the heat of the fever renders the contents of the inteſtines very fœtid and acrimonious, the ſecretions of the liver, pancreas, &c. are often diſturbed both in quantity and quality, and the digeſtion very imperfect; hence the preſent inteſtinal contents ought to be removed at leaſt; and though bleeding cools and relieves more immediately than purging, yet purging does it in a laſting manner, and diſpoſes to quiet natural ſleep—(*Mod. Theory of Phyſic*, p. 174, &c.) But to purging there are alſo ſeveral objections—firſt, as it may induce a conſiderable degree of debility; hence where a dangerous ſtate of debi-

Sect. 1.

Something must be said to each of these cases.

21. (1.) If the blood hurries on so fast as to give a just suspicion of a delirium, or other bad symptom coming on, the day after the emetic I generally prescribe a glyster.

A glyster to be given occasionally.

> *Take of the common decoction for glysters, one pint; syrup of violets, and brown sugar, each two ounces: mix them for a glyster.*

This glyster I order to be repeated occasionally, by which means the blood is often so refreshed and cooled, as sufficiently to check its efferveſcence. It sometimes likewise becomes necessary to repeat bleeding once or twice; as particularly in persons of a very sanguine constitution, and in the prime of life, or such as have inflamed their blood by using wine too freely; though there is seldom occasion for so capital a remedy as repeated bleeding, and therefore glysters may suffice to check the efferveſcence, ex-

lity is likely to occur, it should be employed with a great deal of caution, and more especially as the due measure of evacuation is difficult to be applied. Secondly, as it in some measure takes off the determination of the blood to the vessels of the surface; which determination is of great importance in the cure of fevers. And lastly, where moderate evacuation has appeared to be useful; it is apprehended to have been only by taking off the irritation of retained fæces, or by evacuating corrupted humours which happened to be present in the intestines. (*Cullen's Practice of Physic*, Sect. 1. p. 200, 201, 202.)—Glysters therefore seem to have, for obvious reasons, the pre-eminence, as they may be equally serviceable, and are free from the disagreeable consequences which may attend purging: but as frequent ridiculous objections are made by patients to glysters being often repeated, lenient laxatives, whose stimulus is confined to the intestines, without being communicated at the same time to the rest of the body, or saline aperients, may be properly employed. *W.*

cept

cept in the cases just now mentioned. If therefore the effervescence of the blood be too high, I order a glyster to be injected every day, or every other day, as the case requires, till about the tenth day of the distemper. Chap. 4.

22. But when a large quantity of blood has been taken away, or the patient is in years, I at this time order no glyster, though the effervescence of the blood should be considerable: for, in these cases, as we need not fear its rising so high, without the use of glysters, as *to bring on any great and dangerous symptoms*;* so, on the other side, it is certain that *the strength and texture of the blood may be so impaired*† and relaxed by the use of them, as thus to disturb and hinder the procedure of nature, especially if the patient be in years; for glysters do not succeed so well in the old as the young. But if only little blood has been taken away, then, as was said before, I continue the use of glysters to about the tenth, and sometimes to the twelfth day; as particularly when I durst not bleed at all: for some persons are seized with a continued fever after Cautions relating to glysters.

* *Great and dangerous symptoms, &c.* This is contradicted by practice, and here his theory seems to have misled him. There are many bad febrile symptoms with a weak pulse.

† *The strength and texture of the blood, &c.* What our author means by this expression, and those similar, which occur so frequently in his writings, is not easy to conjecture. This mode of reasoning is more in conformity to his theoretic notions than founded on truth; where it is necessary to empty the bowels from time to time, as occasion requires, glysters are infinitely more safe than any other mode, inasmuch as they weaken the habit less, and we presume the prohibition depends more upon the debility of the system than

Sect. 1. after an autumnal intermittent, whether tertian or quartan, for want of purging at the close of the preceding distemper; and if blood should be taken away in this case, there is danger of the sediment, deposited in the former fermentation, being re-absorbed into the mass of blood, and occasioning fresh disorders. Instead of bleeding therefore in such cases, I continue to use glysters to the 12th day, if the patient be young, and the fermentation too violent.

23. (2.) On the other hand, whether bleeding has been used or not, if the effervescence of the blood sinks too low, and requires raising in order to assist nature in her work; in this case I judge that no glyster should be injected even before the 10th day, and much less afterwards. Otherwise we might thus farther check the fermentation, now already too languid of itself. But to use glysters after this time, *viz.* in the decline of the distemper, would be as absurd, as to stop the fermentation of wine, before the despumation was performed, by opening a large vent-hole: for a glyster here would hinder nature in her vigorous endeavour to throw off the morbific matter.

24. But when once the patient is out of danger from those symptoms arising from too great an ebullition, either by means of proper and seasonable evacuations, or that the disease begins to decline, *the more costive he is kept, the*

than any other cause; and our conduct should be regulated more *by the state of symptoms, and those particularized*, than the days; for at whatever period of the disease the vis vitæ acts too powerfully, it should, by proper means, be checked; and when too languidly, all debilitating modes should certainly be omitted, for very obvious reasons. *W.*

more

more ſecure I judge him;* the febrile matter then proceeding more kindly and gently to concoction. And, therefore, if the preceding evacuations ſhould either actually diſſolve, or tend to diſſolve, the maſs of blood, or the fever go off before its due time, or before it is come to its full period, I not only refrain from the uſe of glyſters, but alſo call in the aſſiſtance of cordials, and directly endeavour to prevent a purging. Chap. 4.

25. *Cordials, as I have experienced,*† when given too ſoon, do miſchief, and unleſs bleeding has preceded, may derive the crude matter of the diſtemper upon the membranes of the brain, the *pleura*, &c. and therefore I never give them when either no blood, or very little has been taken away; or when no other conſiderable evacuation has been made; or the pa- Cordials, when to be given.

* *The more coſtive he is kept*, &c. Experience verifies this proceeding, for in caſes of extreme weakneſs a ſingle ſtool is dangerous, and in leſs degrees purging is improper; unleſs it appears that any preternatural irritation is kept up by the means of acrimony from offenſive matters lodged in the inteſtines, then the ſymptoms alone will direct us to remove the cauſe, by clearing them cautiouſly of their contents. Cordials or bliſters here ſeem the neceſſary aſſiſtants to increaſe vaſcular and nervous action, promote the completion of the cure, and render it more perfect. *W.*

† *Cordials do miſchief when given too ſoon*, &c. Of this there can be no doubt, for whilſt there is ſtrength enough in the conſtitution to promote a due circulation of the fluids, cordials, by increaſing that power, contribute prejudiciouſly to heighten the force of re-action, and bring on various miſchiefs, according as local prediſpoſition may be prevalent in different parts of the habit. But if the power here ſpoken of ſhould be too weak, from whatever cauſe it ariſes, even in the beginning of the fever, it is certainly right, according to our author's opinion in the ſucceeding paragraph, to have recourſe to them. *W.*

tient

Sect. 1. tient has not paſſed the meridian life. For whilſt the blood remains rich enough of itſelf, it ſhould not be more enriched to the endangering the patient; nor does it require to be raiſed, ſo long as no remarkable evacuations have diminiſhed its natural heat. Such kind of patients have cordials within them, which render external ones either needleſs or prejudicial, and therefore I here either uſe none at all, or thoſe of the weakeſt ſort.

26. But if the patient ſhould be greatly weakened and diſpirited by copious evacuations, or be in the decline of life, I uſually allow of cordials, even in the beginning of the fever; and on the twelfth day, when the buſineſs of ſeparation is at hand, I judge a freer uſe of the warmer medicines allowable; and they might be given earlier, if there be no danger of the febrile matter's falling upon the principal parts. For at this time, the more the blood is heated, the more the buſineſs of *concoction* is promoted.

27. *I cannot imagine what phyſicians** mean by their frequent precepts for giving remedies to pro-

* *I cannot imagine what phyſicians mean, &c.* It is obvious from this paragraph, and the ſubſequent one, that SYDENHAM cloſely attended to the operations of nature, and acted conſiſtently with the notions of humoral pathology; he therefore waited on the common febrile proceſs, and attempted to aſſiſt in promoting *concoction*, *deſpumation*, and *elimination*, whenever he obſerved nature defective in theſe points. Hence was there a time allowed for the proper elaboration of the morbid matter, which finiſhed, was called *concoction*; afterwards ſucceeded *ſeparation* or *deſpumation*; and laſtly, the matter was to be thrown out of the body, and *excretion* or *elimination* took place; and hence with him fevers purſued their regular courſe: but this tedious plan may certainly in many caſes, by judicious means early applied,

promote the concoction of the febrile matter, which they often talk of in the beginning of the diſtemper, though at the ſame time they order only ſuch medicines as may moderate the fever. For the fever itſelf is no other than the inſtrument of nature, by means whereof ſhe ſeparates the vitiated parts of the blood from the ſound; though ſhe does this in a manner perfectly imperceptible at the beginning, and even at the ſtate of the diſtemper, but more Chap. 4.

applied, be prevented; and ſuch means as are adapted to remove their immediate cauſes, allowed to form the theory of this day. And theſe apply more to the ſtate of the conſtitution, than to the nature of the morbid miaſmata. If we take off the ſpaſm of the ſmall veſſels, counteract the reaction of the ſyſtem, and prevent their return, we form a ſpeedy and complete cure; and theſe are done by bleeding, where neceſſary, vomiting, purging, antimonials, ſaline ſubſtances, and diluents; the prudent uſe of which will commonly, when applied in time, remove every obſtacle, and free the conſtitution, ſo that it will ſoon return to a ſtate of health;—we now advert to the fever here treated by SYDENHAM; ſo that within a few days, from the attack, all danger and future trouble will ceaſe. And all this appears to be done in conſequence of leſſening the action of the nervous and vaſcular ſyſtem, clearing the primæ viæ, giving a general ſhock to the ſyſtem, determining the fluids to the ſurface, ſupplying tone to the ſmall external veſſels, by increaſing the energy of the brain, and promoting a gentle diaphoreſis; by which means the morbid matter is ſuffered to paſs through the different emunctories, before it has time to fix itſelf in the habit; and, by a continuance of its action, alter the motions of the vaſcular and nervous ſyſtem, or contaminate the fluids. This is generally to be accompliſhed only within the firſt three or five days, perhaps; but at a later period, we are forced to pay attention to the operations of the conſtitution, and regulate them through the natural courſe of the diſeaſe; for which purpoſe, our author deſerves attention. *W.*—See alſo Cullen's *Practice of Phyſic*—Macbride's *Introduction to the Modern Theory and Practice of Phyſic.*

mani-

Sect. 1. manifeſtly in the decline thereof, as appears from the ſediment in the urine. The concoction of the febrile matter here means no more than a ſeparation of the morbific particles from the ſound, whence the way to haſten this concoction is not by moderating the fever, but the effervescence muſt be kept up ſo long as the ſafety of the patient will give leave: but when the diſeaſe is in the decline, and the ſeparation becomes manifeſt, warmer medicines ſhould be immediately given, in order to finiſh the operation with greater certainty and expedition. And this is properly promoting the concoction of the febrile matter; whereas I have frequently found that evacuations and coolers hinder the cure, and put back the recovery that was now approaching. But if the fermentation advances ſufficiently, deſpumation will be finiſhed about the fourteenth day; whereas if coolers are given too late, ſo as to check the effervescence, it is no wonder if the fever run on to the 21ſt day, or even much longer, in perſons extremely weakened with ill treatment.

The concoction of the febrile matter, what.

Deſpumation finiſhed about the 14th day.

28. *It is remarkable here** that, though the patient may ſometimes ſeem to be a little relieved by the uſe of glyſters, or other purgatives, unſeaſonably directed about the decline of the diſtemper, and even, perhaps, to be totally

* *It is remarkable here, &c.* SYDENHAM ſeems here to have thought, that nature being diſturbed in her operation, a new proceſs was required totally to free the habit from the remaining miaſma, conſiſtently with his theory; but in the preſent practice it ſeldom occurs. Dr. SWAN attributes it to the free uſe of bliſters, eſtabliſhed ſince SYDENHAM's time. I am rather led to conſider it owing to the improved mode of treating fevers, and powerful effects of antimonial medicines. *W.*

freed

freed from the fever; yet, a day or two after, it happens that the former fever does not so much appear to return, as a new one to arise; for chillness and shivering presently come on, and are soon followed by heat and a fever, which, unless it happens to degenerate into an intermittent, runs its course as already described. In this case the patient is to be treated in the same manner as if he had not had the fever before; for (how painful soever it may be to the patient, much weakened by the former disease, to wait so long for his recovery) the depuration consequent upon this new effervescence will not be performed in less than fourteen days. Chap. 2.

29. I shall next set down the cordials which I generally use in this distemper, *the milder of which I employ at the beginning,* when the ebullition* The kinds to be used.

* *The milder of which I employ, when the ebullition is violent, &c.* Here certainly can be no use for any, the system requires no stimulus of this sort; but, on the contrary, whatever can allay the too violent motion: cordials increase the power and force of the heart and vascular system, and may be divided into two classes—nutritive and stimulant: the first acts by supporting the strength; the second by stimulating the solids to greater force and freedom in the exertion of their motory power, and consequently accelerating the circulation; hence, in this instance, even the mildest must be extremely improper. Indeed much caution is necessary before we can venture to deal freely in any of the pharmaceutic cordials, or in wine, which is the most certain and durable in its effects; there are so many nice circumstances to be considered, which may either forbid or encourage their use. Only this may be observed in general, that where we have reason to suppose, from the heat and dryness of the skin, and from the excessive thirst and costiveness, that the spasmodic constriction has not at all given way, we should be cautious how we allow their administration; but if there appear a moisture on the tongue, softness of the skin, and a cloud in the urine, while the pulse becomes more

Sect. 1. *tion is violent*, and gradually proceed to the hotter, according as the fever, or the degree of ebullition requires; always obſerving, where bleeding was freely uſed, or the patient was in years, to adminiſter thoſe of a ſtronger kind, than when no blood had been taken away, or the patient was in the vigour of life.

The milder and ſtronger cordials enumerated.

30. The milder cordials I mean are ſuch, for example, as are made of the diſtilled waters of borage, citrons, ſtrawberries, the compound ſcordium water, with a mixture of the ſyrup of balm, cloves, or juice of citrons, *&c.* But the ſtronger are *Gaſcoin*'s powder, bezoar, confection of hyacinth, *Venice* treacle, with others of the ſame kind. The following preſcriptions were frequently uſed.

Forms of cordials.

Take of the diſtilled waters of borage, citron, black cherries, and compound ſcordium water, each two ounces; barley cinnamon water, one ounce; prepared pearl, two drams; fine ſugar, two ounces, or a ſufficient quantity: mix them together.—Take four ſpoonfuls of this mixture often in a day, eſpecially when faint.

Take of the diſtilled waters of the whole citron, and ſtrawberries, each three ounces; the cooling cordial water of SAXONY, *one ounce; treacle water, ſyrup of balm of* FERNELIUS, *and of the juice of citron, each half an ounce: mix*

more calm and full, we may then conclude the ſpaſmodic ſtricture is yielding, and aſſiſt nature by giving wine, ſtrong wine whey, volatile alkaline ſalts or ſpirits, confectio aromatica, radix ſerpentaria, and others of this claſs. Indeed our author has choſen ſuch as poſſeſs a very ſcanty ſhare of cordial power; but, however, even theſe at the beginning are much better avoided. *W.*

them

them for a julap; ſome of which is to be taken frequently. Chap. 4.

Take of GASCOIGN's *powder, oriental and occidental bezoar, and* LAPIS CONTRAYERVA, *each a ſcruple; a ſingle leaf of gold; bring the whole into a fine powder, of which take twelve grains, as often as there ſhall be occaſion, in ſyrup of the juice of citron and cloves, each two drams; drinking after it a few ſpoonfuls of the julap above directed.*

Take of treacle water, four ounces; the ſeeds of citron, two drams; beat them together and make an emulſion: to the ſtrained liquor add ſugar ſufficient to ſweeten it to the taſte.—Take two ſpoonfuls of it thrice a day.

It would be needleſs to add any more forms of medicines, becauſe a great number are, or may be, of uſe in the courſe of the diſtemper, and require to be varied according to its different ſtages, and the different ſymptoms ariſing therein.

31. (3.) But when the fermentation neither riſes too high, nor ſinks too low, I leave it in that ſtate, *without preſcribing any medicines,** unleſs Remedies when needleſs.

* *Without preſcribing any medicines, &c.* It is much to be lamented, that ſuch is the genius of the times; that phyſicians are often under the neceſſity of acting contrary to their own wiſhes, more from the importunity of folly, than the impulſes of judgement; in order to eſcape the imputation of ignorance or inattention. The timidity and fretfulneſs of patients; the anxious ſolicitude of friends; the impertinence of goſſips, who, not knowing any thing, judge of all things; drive the medical pen into action, which moves not to cure, but pleaſe. If the patient's mind can be kept at eaſe by theſe means, *placebos* may be his refuge; and on this account, and this only, ought he to ſubmit;

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Sect. 1. leſs forced to it by the importunity of the patient, or his friends; and then I direct ſuch only as may pleaſe without prejudicing.

Perſons in low circumſtances, how to be treated.

32. I ſhould not omit, that frequently when I was called to perſons of low circumſtances, I ordered them to do nothing elſe, after bleeding and vomiting when required, but to keep in bed during the whole courſe of the diſtemper, and to ſup only water-gruel, barley-gruel, and the like; *to drink moderately of warm ſmall beer* * to quench their thirſt, and to take a glyſter of milk and ſugar every day, or every other day, till the tenth or eleventh day of the diſtemper; but towards the end of the fever, when the ſeparation was begun, and proceeded ſlowly, to promote it, I allowed them now and then a little ſtronger malt liquor, inſtead of cordials. And thus without any thing further, except a gentle purge at the end of the diſtemper, they generally did well.

for quietude of mind in the patient, and confidence in his phyſician, are requiſites eſſentially neceſſary for his ſpeedy recovery; and it is certainly more humane and uſeful to attempt ſatisfying the indiſpoſed by whimſical indulgence, than diſturb them by honeſt pride, or injudicious integrity. *W.*

* *To drink moderately of warm ſmall beer, &c.* Clear old ſmall beer, neither bitter nor ſour, will agree very well with thoſe who have no *nauſea*, *ſickneſs at ſtomach*, nor *tendency* to a looſeneſs. Where the ſymptoms are moderate, and where the blood is not too much rarefied, to deny ſmall beer to be taken now and then moderately, is a needleſs ſeverity, and very often hurtful, eſpecially where it has always been uſed as the common diluter of the food. But in others, whoſe vital powers are wound up to the higheſt pitch, ſmall beer will not agree; becauſe, however ſmall, it contains a portion of ſpirit, which, by its briſkneſs, will irritate the *fibrillæ* into more frequent and ſtrong contractions, and render the patient delirious if not ſo before.

33. If the method above delivered was carefully obſerved, I commonly, *about the fifteenth day*, found it proper, from the laudable ſeparation in the urine, and a manifeſt abatement of all the ſymptoms, *to order a purging potion* * *to drain off the ſediment* depoſited upon particular parts by the preceding fermentation; and unleſs this was ſeaſonably done, that ſediment might return into the maſs of blood, and occaſion a return of the fever; or, by its continuance in the parts where it lodged, produce obſtinate diſorders in the body. For the ſeparation being now over, the groſs and vitiated humours, tranſmitted from the arteries to the veins, eaſily prevent the return of the blood, whence various kinds of obſtruction, and, at length, new ferments ariſe. Chap. 4. A purge, when to be given.

* *About the fifteenth day to order a purging potion, &c.* Though our author's theory here is very prevalent, and reaſons aſſigned for its neceſſity are, without doubt, the offspring of fiction, ſtill we muſt allow the practice proper and judicious; for from the diſturbance which has been raiſed in every part of the conſtitution by the preceding illneſs, the irregularity of the ſecretions and excretions, the ſupernatural heat and motion it has experienced, naturally render the blood acrimonious, and leave different parts of the habit, particularly the viſcera and glandular ſyſtem, in a debilitated ſtate, from whence theſe particular humours cannot be ſuppoſed to be ſo perfect as they ought, nor the glands capable of performing their functions properly; of courſe, therefore, they will be overloaded with fluids not in a very healthful ſtate Purging, therefore, as it tends to clear the whole habit, and increaſe viſceral and glandular action, is highly proper to evacuate any peccant matter, whilſt with proper diet, exerciſe, &c. the fluids of the conſtitution may be meliorated and renewed, and the habit in general recover its uſual force and action. *W.*—But the reader will meet with ſome judicious obſervations on *purging*, well worth his reading, in Langriſh's *Modern Theory of Phyſic*; *Glaſs de Febribus*; and in Dr. Barker's *Eſſay on the Agreement between the Ancient and Modern Phyſicians.*

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When less necessary.

34. But it may be here observed, *that purging is not so necessary after vernal*,* as after autumnal fevers, because the sediment deposited by the former is neither so copious, nor of such an earthy malignant nature as in the latter; *which holds also in the small pox*,† and many other distempers that rage in the spring; so that here, as far as I have observed, it is not so dangerous to omit purging, as in the cases beforementioned. And it seems to me, that more distempers arise from an omission of purging after autumnal disorders, than from any other single source.

35. If the patient happens to be very weak, or the depuration not perfectly performed, so as to render it unsafe to give a purge on the fifteenth day, I defer it to the seventeenth, and then prescribe the following, or the like, purging potion, in proportion to the strength of the person:

A purging potion.

Take tamarinds, half an ounce; the leaves of sena, two drams; rhubarb, one dram and a half; boil them together in a sufficient quantity of water, so as to leave three ounces when strained off; in which dissolve manna and syrup of roses, of each one ounce: mix the whole for a purging potion to be taken in the morning fasting.

36. I always order the patient to keep his bed till he is purged, then permit him to rise, and by degrees return to his ordinary way of living.

* *That purging is not so necessary, &c.* The practice may be good, but the theory cannot be commended.

† *Which holds in the small pox, &c.* This practical direction is absolutely contradictory to experience; one would wonder how so careful an observer could be led to affirm this; but his theory seems to have prevailed here.

The

Chap. 4.

The diet I order to this time is nearly the same with that abovementioned; as water-gruel, barley-gruel, panada made of bread, the yolk of an egg, water and sugar, thin chicken broth, small beer, to which, when the fever is high, a little fresh juice of oranges may be added, it being first just boiled over the fire to take off the rawness, with the like; though water-gruel may serve for them all. But to forbid the drinking moderately of small beer is a needless severity, and often pernicious.

The diet to be used upon recovery.

37. It sometimes happens, especially in the aged, that though the fever is cured, and the body perhaps rather too much purged, *that the patient still remains very weak*;* and with coughing or spitting, expectorates a large quantity of viscid phlegm: a symptom terrifying not only to the patient, but also to the physician, if not apprized of it, who might otherwise mistake it for a beginning consumption: though I have found it not very dangerous. In this case I order a glass of old *Malmsey*, *Falernian*, or *Frontignac*, with a toast; which, by strengthening the texture of the blood, (much weakened by the preceding fever, and therefore rendered unfit to assimilate the juices of the aliment lately taken) removes

A cough at the decline, how to be relieved.

* *The patient still remains very weak, &c.* Wine is certainly a good and proper restorative, and well calculated to remove those complaints which have been brought on by the severity of the febrile affection, and induced local as well as general debility; but these soon give way to proper diet, such as is nutritious, given at intervals, and in such small quantities, as can be quickly digested, for more does infinite harm, and lays the foundation for a variety of complaints, by loading the constitution, already in too debilitated a state, with crude juices, which it cannot assimilate: and in order to expedite recovery, slight chalybeates, with bitters, and riding on horseback, are highly conducive. *W.*

Sect. 1. this ſymptom in a very few days, as I have found by repeated experience.

Malignity and the ſcurvy unjuſtly accuſed.

38. By the method here laid down, the patient will be preſerved from ſeveral ſymptoms and diſorders uſually aſcribed to malignity; nothing being more common with unexperienced phyſicians, than to lay the blame on malignity, when, by too cooling remedies, or the unſeaſonable uſe of glyſters, they have weakened the texture of the blood, and reduced nature ſo low, whilſt ſhe was performing the office of ſeparation, as to bring on faintings, and other bad ſymptoms, which are the genuine effects of ſuch perverted rules of art: but if the long continuance of the diſeaſe ſhould wipe off this aſperſion of malignity, whatever afterwards obſtructs them in the cure, they impute to the ſcurvy; though in reality the ſymptoms that happened in the height of the diſeaſe were neither owing to malignity, nor thoſe that appear in the decline, to the ſcurvy, but both of them to wrong management, as I have frequently obſerved. Not that I, nor any other phyſician, who is acquainted with the hiſtory of diſeaſes, will ſay that there are no fevers of a malignant nature, for there are manifeſt ſigns of ſuch; nor will I deny that a fever may be ſometimes complicated with a ſcurvy and other diſorders; but what I aſſert is, that both malignity and the ſcurvy are here frequently blamed without reaſon.

Coolers and glyſters given too late, prolong the diſeaſe.

39. When the fermentation of the blood proceeds in a proper manner, the deſpumation of the morbific matter will be finiſhed in the time abovementioned; but if cooling medicines, or glyſters, are given too late, the fever will run to a much greater length, eſpecially in aged perſons

perſons that have been improperly treated. When I have ſometimes been called to ſuch, after they have ſtruggled with the fever above forty days, I have uſed my utmoſt endeavours to procure the deſpumation of the blood, which was now ſo far weakened, partly by age, and partly by glyſters and cooling medicines, that I could not obtain the end propoſed, either by cordials, or any other ſtrengthening remedies; but either the fever maintained its ground, or, if it ſeemed to go off, *the ſtrength of the patient was almoſt quite exhauſted.** Chap. 4.

40. But when other means failed me, I have made uſe of a ſingular expedient with great ſucceſs, namely, the application of the heat of ſtrong and healthy young men: nor will it be found ſurpriſing, that by this uncommon means the patient ſhould be conſiderably ſtrengthened, and debilitated nature aſſiſted, ſo as to diſburden herſelf, and throw off the remains of the morbific matter; for it is eaſy to apprehend that a conſiderable quantity of ſound and wholeſome *effluvia* will thus paſs from a robuſt, healthy body, into the exhauſted body of the patient; and I have never found the repeated application of warm napkins to prove near ſo ſerviceable as the preſent method, where the heat applied is not only more natural to the human body, but alſo more mild, moiſt, equable, and conſtant. And this way of tranſmitting, perhaps, balſamic Good effects of applying the heat of young men.

* *The ſtrength of the patient was almoſt exhauſted, &c.* Bliſters here are of principal uſe; to which we may add bark joined with cordials, and wine given in pretty large quantities; for the cauſe here appears to be exceſs of debility from the ſtrength of the conſtitution being impaired ſo greatly by the long continuance of the diſeaſe. *W.*

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ſpirits and exhalations into the body of the patient, however quaint it may ſeem, has alſo ſince been ſucceſsfully uſed by others. *Nor do I think it below me to have** mentioned this expedient, whatever cenſure it may expoſe me to, from ſuch as contemn whatever is vulgar; as judging the health and benefit of mankind ought to be preferred to their falſe opinion of things.

Some ſymptoms here require a particular treatment.

41. By carefully purſuing the method hitherto delivered, the greater part of the bad ſymptoms, that either accompany, or follow upon this fever, will be prevented, which otherwiſe, in the courſe of the cure, frequently perplex the phyſician, and prove fatal to the patient, though the diſeaſe itſelf ſhould have no ſuch deſtructive tendency. But as ſuch accidents are common, if the phyſician comes too late, be negligent, or unſkilful, I will here briefly treat of the cure of thoſe ſymptoms, which, when they happen, require a peculiar treatment, though they might generally have been prevented, by keeping cloſe to the above-mentioned method.

Method of treating a *delirium*.

42. And, firſt, *if a delirium be occaſioned*,† either by the too early and unſeaſonable uſe of heating

* *Nor do I think it below me, &c.* This conduct does great honour to SYDENHAM, and ſhould be maintained by every phyſician. The contempt of vulgar prejudices beſpeak a noble diſintereſtedneſs, and where the health and benefit of mankind can be procured by any means, thoſe means ſhould be adopted: be they ever ſo incongruous to the opinion of the world, the reflection of the utility will amply compenſate him, and time, amidſt the calumny of fools, at laſt elevate him in the opinion of the diſcerning. *W.*

† *If a delirium be occaſioned, &c.* The cauſe of this ſymptom ſhould be inveſtigated with great perſpicuity, as it may ariſe from different ſources; either from too violent re-

heating medicines, or the patient's being naturally of a hot conſtitution; or, which is nearly the ſame, if he has conſtant watchings, raves, ſpeaks haſtily, looks wild, takes his medicines, or rather liquids eagerly, or has a ſuppreſſion of urine: in this caſe I bleed more freely, order glyſters and cooling medicines, particularly in the ſpring, at which time ſuch as are young and florid, though free from this ſymptom, may be treated in the ſame manner, without much danger. Chap. 4.

43. By theſe means I endeavour to ſupport the patient, till the diſeaſe is run to a certain length, when I find it eaſy to take off both that and the delirium, by a large doſe of ſome opiate; for anodynes properly given in the decline are very beneficial, whereas they prove of no ſervice whilſt the fever is high, though given in the largeſt doſe, as being unable to ſtop the violent courſe of the fermentation; but chiefly becauſe the peccant matter, then equably mixed with the blood, and not ripe for ſeparation, is Taken off by an opiate.

re-action of the ſyſtem, or too great debility; an inflammation of the brain or its membranes, &c.—In an acute fever, ſhould it be accompanied with a full, quick pulſe, bleeding in the jugular vein is proper to leſſen the preſſure on the brain, and divert the blood to the extremities; fomenting the internal parts of the thighs with warm fomentations, or vinegar and water; bathing the feet and legs in warm water ſhould be had recourſe to; or ſtimulating plaiſters or cataplaſms applied to the feet—Antimonials joined with nitre may be given with advantage, or whatever can abate the heat and tenſion of the nerves, remove the ſpaſmodic conſtriction, or blunt the ſtimulus; but if it is accompanied with a weak, ſlow, and irregular pulſe, indicating debility in the ſyſtem being prevalent, bliſters are proper, warm ſtimulants, and all nervous medicines, opiates excepted, for theſe are in this caſe very unſafe. *W.*

confined,

Sect. 1. confined, whence the expected depuration is hindered. Whether this be the reason of the thing, or it proceeds from some more latent cause, I leave to the determination of others.

Cautions at the time of giving it.

44. This, however, I can affirm from numerous observations, that laudanum, or any other narcotic used to take off this symptom, whether in the beginning, increase, or height of this fever, was either ineffectual or prejudicial; whereas a moderate dose in the decline proved successful. I once ordered a narcotic upon the twelfth day of the disease, with success, but never knew it given sooner with advantage; and if it be deferred to the fourteenth day, when the separation is more perfect, it will prove still more beneficial. For I have frequently observed, that the delirium may be disregarded, till it is proper to give an opiate, provided the disorder be not increased by the use of cordials, and heating medicines, which may here prove mortal. The opiates I usually prescribe, *are either London Laudanum** to a grain and a half, or the following:

Forms of opiates.

Take of cowslip flowers, one handful, boil them in enough black cherry water to leave three ounces, when strained off, to which add syrup of white poppies, half an ounce; juice of lemons, half a spoonful; mix the whole together. Or,

Take of black-cherry water, one ounce and a half;

* *Either London laudanum, &c.* One grain of opium is a common dose; tinctura opii camphorata; or tinctura opii may be given in any of our simple waters in present use; such as those of pepper-mint, cinamon, or penny-royal; what are prescribed by SYDENHAM being thrown out of practice. *W.*

plague-

plague-water, two drachms; liquid laudanum, Chap. 4.
ſixteen drops; mix them together.

45. It may be proper to add, that if this ſyſtem be not very urgent, and the fever be prolonged, ſo as that the patient may be ſafely purged before an opiate is given, it will then be attended with greater ſucceſs. And therefore I uſually direct two ſcruples of the greater *Pil. cochiæ*,* diſſolved in betony water, to be taken ten or twelve hours before the opiate; and thus the diſturbance this warm purgative might otherwiſe occaſion will be prevented by the opiate, and an agreeable ſleep procured. But if the watching continues after the fever, and the other ſymptoms are gone off, I have known a piece of linen dipt in roſe-water, and applied cold to the forehead and temples, prove of greater ſervice than any kind of opiate. To be preceded by a purge.

46. It is uſual for the patient to be afflicted with a bad *cough* during the whole courſe of the diſeaſe, ariſing from the violent commotion of the blood, whereby the juices being broke, are ſeparated from the maſs, in its circulation through the pulmonary veſſels, and thrown upon the internal membrane of the *trachea*, which is of a fine texture, and extremely ſenſible. The cough is firſt dry, the matter being then too thin to be expectorated; but the febrile heat gradually thickens it, and ſoon renders it more tenacious, whence it is with difficulty expectorated; and becomes apt to cauſe a ſuffocation, for want of ſufficient ſtrength in the patient to diſcharge it. Treatment of a cough.

* *Pilula cochiæ.* Extractum e colocynthide compoſitum; pilulæ ex aloe c. myrrhâ, or rhubarb may ſupply its place; the latter is moſt eligible. *W.*

In

Sect. I.

Oil of ſweet almonds commended in this caſe.

In this caſe I ſeldom uſe any other medicine than freſh-drawn oil of ſweet almonds, unleſs, as it ſometimes happens, the patient has an averſion to oil, and if ſo, I endeavour to relieve him by the common pectorals. Otherwiſe I prefer the oil of almonds to all other pectoral medicines, chiefly becauſe to anſwer the intention they muſt be given freely, and in large quantities; whereby the ſtomach, already too weak, and ſubject to retchings, is overcharged; and, beſides, we are ſometimes by this means prevented from giving what is proper upon other accounts.

Its diſadvantages obviated.

47. Again, neither reaſon nor experience have yet convinced me that the uſe of this oil is not to be allowed in fevers, becauſe it is *of an inflammable nature*,* and conſequently may tend to increaſe the diſtemper; for granting it to be naturally hot, it is, however, certainly not ſo hot, but that the advantages ariſing from its uſe are greater than the inconveniencies. For it is an excellent pectoral, opens and lubricates the paſſages, thereby promoting expectoration, which, when copious, frees the blood from the noxious humour, now ſeaſonably ſeparated, and at the ſame time tends to cool; ſo that this ſymptom thus proves of conſiderable ſervice, for which reaſon I am not anxious about it. Let it, however, be obſerved, that it is unſafe to give ſe-

How to be given.

* *Of the inflammable nature, &c.* This medicine is ranked very properly now amongſt the claſs of emollients, externally; and amongſt demulcents internally; and may certainly, in this caſe, be given with ſafety: mixed with the pulp of roaſted lemon, and ſweetened with ſugar-candy, it is a pleaſant, and not inefficacious remedy for relieving this uneaſy ſymptom; beſides it is very often taken more freely and willingly by the patient, from its not being conſidered an apothecary's compound. *W.*

veral

veral ſpoonfuls of oil of almonds at once, as retchings and a looſeneſs may thereby be occaſioned; but the frequent uſe of it in ſmall quantities, throughout the day and night, not only eaſes the cough, by promoting expectoration, but, which is very material, the patient, now almoſt worn out, will be in ſome meaſure recruited by this kindly nouriſhment. Chap. 4.

48. Sometimes a *bleeding at the noſe* happens, either from giving too warm medicines in the beginning of the fever, or from not ſufficiently depreſſing the ebullition of the blood, the patient either being in the prime of life, or the ſeaſon of the year conſpiring with the fever. Here the means commonly made uſe of to check the motion of the blood will be of little ſervice; ſuch as bleeding, ligatures, aſtringent, agglutinant, balſamic medicines, *&c.* though recourſe may be had to theſe and the like helps, according as they ſhall be judged proper; but the principal thing is, to ſtop the violent ebullition of the blood by a proper medicine; though, in reality, if this ſymptom be conſidered apart, the remedies above mentioned, and particularly bleeding, ſhould ſeem to be ſerviceable therein; nor have I ſcrupled to uſe them; yet as they do not (bleeding excepted) ſtrike ſufficiently at the cauſe of this ſymptom, *viz.* the ebullition of the blood, it is imprudent to depend upon them; therefore, in this caſe, when all other means had proved ineffectual, *I uſually gave the following draught* :* A *bleeding at the noſe*, how to be ſtopt.

Take

* *I uſually gave the following draught, &c.* So gentle an opiate does not ſeem likely to put a ſtop to a *bleeding at the noſe*, where the above-mentioned means fail. If the hæmorrhage

Sect. 1.

A quieting draught.

Take of the diſtilled waters of purſlain, and wild poppies, each an ounce and a half; ſyrup of white poppies, ſix drams; ſyrup of cowſlips, half an ounce; mix them together for a draught.

All hæmorrhages not to be immediately ſtopped.

49. But I judge it improper to put an immediate ſtop to every hæmorrhage after this manner; for it is frequently rather to be permitted, and may prove of great ſervice, ſometimes, by abating the too violent ebullition of the blood, and, at others, *by proving critical, put an end to the diſeaſe.** And, in reality, no conſiderable effect is to be expected from the above-mentioned remedy, unleſs the ſymptom has continued ſome little time, and bleeding in the arm preceded its uſe. Again it muſt be carefully remarked, that this and all other immoderate hæmorrhages are peculiarly apt to return, ſoon after a ſtop

hæmorrhage be violent, therefore, it will be proper to bleed in the jugular, ſet cupping glaſſes on the ſhoulders, apply cooling lotions to the head and parts adjacent, bathe the extremities in warm water when they are cold, blow a ſtyptic powder up one or both the noſtrils, as it ſhall be neceſſary, or put up a tent dipt in ſome ſtyptic liquor. *See Sect.* vi. *chap.* vii. *par.* 8. Cooling emulſions, opiates, ſub-aſtringent and nitrous medicines are to be given internally, and a ſpare, thin diet uſed. An upright poſture, with the head bending a little forwards, is the beſt here. If the blood be acrimonious, thin, and ſerous, agglutinants ſhould be freely exhibited. In caſe of great weakneſs from the loſs of blood refrain from opiates entirely, and direct mild cordials, a reſtorative diet, and reſt.

* *By proving critical, put an end, &c.* Here we ſhould act with the ſame kind of precaution as in the caſe of diarrhœa, for the ſame reaſons; obſerving that the debility, ſhould the ſanguinary efflux not be critical, will be in this caſe more rapidly increaſed than in the former. See page 18, note 14.; for all ſanguinary evacuations are more quickly debilitating to the habit than any other of the excretions ſupernaturally increaſed. *W.*

has

has been put to them, unleſs a gentle purge be given, which therefore muſt not be omitted, even though it ſhould ſeem too early to purge, with reſpect to the ſtage of the fever, if this ſymptom had not happened Chap. 4.

50. *The hiccup generally happens to the aged,** after an immoderate looſeneſs, but chiefly after exceſſive vomiting, and frequently prognoſticates imminent death, I ingenuouſly own that I have not been able to ſatisfy myſelf in my inquiry into the cauſe of this ſymptom; but I have frequently obſerved it to proceed from ſome diſturbance raiſed in the ſtomach and adjacent parts by violent medicines, not without great danger to the patient, becauſe nature is unable An hiccup how to be treated.

* *The hiccup generally happens to the aged, &c.* When this occurs in the decline of fevers it is always a very dangerous ſymptom—HIPPOCRATES conſidered the ſtomach alone the ſeat; HOFFMAN, the diaphragm; though others are of the former opinion—It is generally the concomitant of extreme debility, and depreſſion of ſpirits. Weak opiates have been recommended by ſome, joined with volatile fetid medicines; theſe may be uſed, but the proportion of the opiate ſhould be very ſmall, leſt the depreſſion of ſpirits ſhould be increaſed, and a fatal ſtupor be the conſequences. Antiſpaſmodics, and gentle anodynes are to be preferred, particularly muſk, which may be adminiſtered in doſes of from ten to thirty, or forty grains, according to the urgency of the ſymptom; the efficacy of which may be improved by joining with it camphor and valerian.

Should it proceed from viſcid or irritating matter lodged in the ſtomach, the offenſive materials may be evacuated by clearing that organ by a vomit, if the ſtrength of the patient will permit: a reſtorative diet, and prudent uſe of wine will give relief, if the cauſe be owing to depletion, or immoderate evacuations; if to excoriation, or inflammation from corroſive poiſon, or any ſimilar ſtimulus, plenty of warm milk, and oil of almonds or olives frequently adminiſtered, and freely thrown up into the inteſtines, may produce happy effects. *W.*

to

Sect. 1. to check and quiet this commotion; and on this account I judged it proper to assist her by art, by giving a large dose of *diascordium, viz.* two drams, which seldom failed to remove this symptom, when the seeds of dill and other celebrated specifics had proved ineffectual.

A looseness how to be cured.

51. *If,* as above intimated, *a looseness should happen in the course of the disease,** for want of giving a vomit at the beginning, when it was indicated by the retchings; one should be given at any time of the disease, provided the patient be strong enough to bear it, even though there be now no tendency to that evacuation. But as this has been largely treated in the foregoing pages, I shall only mention what is proper to be done, if a looseness should happen notwithstanding an emetic has been given; which is very seldom the case, except in an inflammatory fever, where this symptom, so far from being prevented, is sometimes occasioned by a vomit; which is an observation of consequence. And here I have found the following glyster more efficacious than any other astringents:

An astringent glyster.

Take of the bark of pomegranates, half an ounce; red roses, two pugils; boil them in a sufficient quantity of milk, so as to leave half a pint of

* *If a looseness should happen, &c.* We have spoken before of this symptom, and given some directions towards shewing how its nature may be distinguished, whether critical or not (page 18, note 14.)—We have now only to add, that if from the concomitant symptoms it should be suspected that too great debility is induced; if the pulse sinks; sickness and faintings come on; partial sweats; limpid urine, &c.; we must fly to cordials, diaphoretics, blisters, and diet the most nutritious; these are preferable to astringents, as they tend to solicit the flux of humours from the intestines, and invigorate the system. *W.*

strained

ſtrained liquor, in which diſſolve half an ounce of diaſcordium: *mix the whole for a glyſter.* Chap. 4.

It is improper to inject a larger quantity of this glyſter than is here directed, though it be naturally aſtringent; becauſe the inteſtines may be oppreſſed by its bulk, whence the looſeneſs will rather be promoted than checked.

52. But it may be ſaid, that if a diarrhœa ſhould appear, eſpecially in the decline of the diſeaſe, it is better to encourage than ſtop it; as it is ſometimes a critical diſcharge, and terminates the diſtemper. *This undoubtedly may ſometimes be the caſe,** but it happens ſo rarely, as not Rather to be checked than encouraged

* *This may undoubtedly ſometimes be the caſe, &c.* If ſo, we ought to be provided with the means of diſcovering, and alſo of aiding it when neceſſary; as the neglect of this circumſtance may draw us into danger;—I was called in to a lady in St. Margaret's church yard, Weſtminſter, who had, when I ſaw her on the third day of her being taken ill, the common ſymptoms of a continued fever, labouring under great heat, and thirſt; dry ſkin; ſome uneaſineſs in her head, which had been preceded by alternate chilline ſs, and heat; her pulſe was at that time 108; though quick, they were not full: I ordered her an emetic, and afterwards the ſaline mixture with antimonials; on the fourth day ſhe was apparently relieved; her pulſe more calm and ſlow; her head free from uneaſy ſenſations, and a gentle diaphoreſis had taken place; her urine was clear and high coloured; ſhe had this day two ſtools: on the fifth her ſymptoms were ſomewhat aggravated; no ſtool this day: on the ſixth, in the morning, ſhe was much the ſame; I could find no perceptible difference: a glyſter was given her, which produced one plentiful evacuation; and the kali vitriolatum added to her antimonial boluſes: in the evening her pulſe was not more than 98; though ſhe had no moiſture on her ſkin, ſtill there was a ſoftneſs in it: on the ſeventh, every thing wore a promiſing aſpect, only ſhe complained of ſome uneaſy twitching, and a great motion of wind rolling in her bowels; ſhe had that day no ſtool: on the eighth, her com-

Sect. 1. not to encourage one to attempt it; beſides, the reaſon before alledged, in treating of the cure of fevers in general, which tends to ſhew the neceſſity there is of ſtopping the flux, holds here alſo. And to this may be added, that in order to the genuine depuration of the blood, it is not only neceſſary there ſhould be a ſecretion of ſome feculent parts, but there is further required a ſeparation of others by way of *efflorescence*, as we daily ſee in other rich and heterogeneous liquors; conſequently, if the looſeneſs be too much promoted, the depuration will not be wholly completed, and perhaps the matter that ought to have been laſt expelled, will paſs off firſt. I own, indeed, that after the ſeparation by way of *efflorescence* is finiſhed, which is uſually performed gradually and inſenſibly, and by means of a freer perſpiration, rather than of a manifeſt ſweat, if then a looſeneſs ſhould happen, it would be attended with little danger; for it muſt be obſerved, that now it is only owing to a neglect of purging in time, whence the excrement, for want of being evacuated, contracting a kind of malignant ferment, irritates the inteſtines to diſcharge their contents; beſides, the very liquid conſiſtence of the excrement is a proof that the looſeneſs ought not

plaints were ſimilar with an increaſe of thirſt; as ſhe had no inteſtinal diſcharge the day before, a ſecond glyſter was ordered, which produced ſix or ſeven copious evacuations, and from that time ſhe perfectly recovered. Beſides this, I have ſeen other caſes, where the conſtitution made this exertion by the inteſtines the means of relief; I cannot, therefore, ſubmit to ſacrifice facts to the reaſoning of our author, which is inconcluſive, and merely built upon hypotheſis. *W.*

to

to be accounted a critical ſolution of the diſ- Chap. 4.
eaſe.

53. Poſſibly the *iliac paſſion* * deſerves to be enumerated among the ſymptoms conſequent upon fevers, ſince it is ſometimes occaſioned by immoderate vomiting in the beginning of the diſeaſe. This terrible diſorder, which has hitherto generally been eſteemed fatal, *is owing to the inverſion of the periſtaltic motion* of the guts, whence their contents are forced upwards, and thrown out by vomiting, ſo that the ſtrongeſt glyſters become emetic, as do likewiſe cathartics, immediately after being taken: and I judge the exquiſite and intolerable pain attending this diſorder, proceeds only from the inverted periſtaltic motion of the bowels, whoſe natural formation is ſuch, as by their many folds to promote the deſcent of the fæces in the propereſt manner; and therefore whenever they are forced to yield to a motion oppoſite to that of their fibres, a pungent pain is occaſioned, which remains fixed upon a particular part, when either the valve placed at the beginning of the *colon*, to

The *iliac paſſion*, whence.

* *The iliac paſſion is owing to, &c.* Though this diſeaſe has generally been thought to be diſtinct from any other, yet there are ſome who conſider it only as a different degree of the colic, owing to the ſame proximate cauſe, and having the ſame ſymptoms; and this cauſe a ſpaſmodic conſtriction of part of the inteſtines, produced by irritation; for though obſtructions have been aſſigned as a ſource alſo, they are only ſuch, in as much as they produce this conſtriction; and therefore the cure depends upon its removal. To attain which point, ſuch remedies are indicated as take off by their various antiſpaſmodic powers the inteſtinal ſpaſm, as by their purgative action promote that of the inteſtines, or produce mechanical dilatation. See Cullen's *Practice of Phyſic*, vol. iv. p. 20, 22, 23, 24. *W.*

Sect. 1. prevent the return of the excrement into the *ilium*, or any other membrane belonging to the cavity, ſingly ſuſtains the force of this preternatural motion. This inverted motion, productive of the pain, may proceed either from (1.) obſtruction, or (2.) irritation.

Whence the inverted motion of the inteſtines.

54. (1.) It is manifeſt that whatever blocks up the paſſage of the inteſtines, muſt needs occaſion this contrary motion in them; and this may happen, according to authors, (1.) from hardened excrements, (2.) much *flatus* collected in the bowels, and, as it were, purſing them up, (3.) ſtrangulation from a rupture, (4.) inflammation, (5.) and laſtly, large ſwellings filling up their cavity. However, it is plain that the inverted motion, proceeding from theſe cauſes, is rather to be accounted the motion of the aliment taken in, than of the inteſtines themſelves; nor is it an inverſion of the motion of the whole duct, but of thoſe parts only which are ſituated above the ſeat of the obſtruction; for which reaſon I call it the *ſpurious iliac paſſion*.

55. (2.) I conceive the inverſion of the periſtaltic motion generally proceeds from acrid and peccant humours being depoſited in the ſtomach and adjacent inteſtines, from the violent fermentation of the blood in the beginning of the fever, whereby the motion of the ſtomach is firſt inverted, and its contents thrown up with violence, and then the ſmall guts that are contiguous to it being weakened, yield to the violent motion of the ſtomach, and at laſt the large guts are alſo made to ſympathize with them. This is the *true iliac paſſion*, and the diſorder under conſideration. The method of curing it has hitherto remained a ſecret, notwithſtanding the pretenſions

sions of such as had recourse to quicksilver and leaden bullets, which do little service, and are frequently very dangerous. Chap. 4.

56. As soon as it appears from glysters being vomited up, and other signs, that the disease is a true iliac passion, I endeavour to answer these three intentions: The intentions of cure to be answered.

(1.) To put a stop to the inverted motion of the stomach, which produces the same in the intestines.

(2.) To strengthen the intestines weakened by the sharp humours. And

(3.) To free the stomach and bowels from these sharp humours.

57. (1.) *I direct a scruple of salt of wormwood,** with a spoonful of *lemon juice*, to be taken In what manner.

* *I direct a scruple of salt of wormwood, &c.* Bleeding is certainly the first step to be taken, except the patients are greatly debilitated, or of weak, relaxed habits; in order to prevent an inflammation coming on, and be a means of taking off the intestinal spasm, consequently stopping the inverted motion of the stomach: and this must be often repeated, if the fullness and hardness of the pulse, intenseness of pain, the firm texture and sizeness of the blood, indicate the presence of inflammation.

The saline mixture should be oftener given, and in a state of fermentation, as it is more effectual in stopping the vomiting in this form. Heat should be applied in a dry or humid form, a semicupium is the best, or where that cannot be had, fomenting the abdomen, and bathing the legs in water at the same time; blistering the abdomen is highly useful, or the upper parts of the thighs. With regard to the pilulæ cochiæ, less drastic purges should be first tried, for these may be too powerfully irritating, and tend to bring on or increase inflammation; and sometimes lenient purgatives will answer better than those which are more stimulant; such as natron vitriolatum, manna with oleum Ricini, &c.: but if the stomach will not bear these, jalap may be tried, mixed with some of the neutral salts, calomel,

Sect. 1. ken morning and night, and in the intervals give ſome ſpoonfuls of *mint-water* by itſelf, twice every hour, by the repeated uſe of which the vomiting and pain may be ſoon removed. (2.) At the ſame time I order a live puppy to be applied to the belly, till the following purgative is given. (3.) Two or three days after the pain

mel, extractum e colocynthide compoſitum, as they can be given in a ſolid form and ſmall quantities, to produce the deſired effect.

Opiates have been recommended by ſome; but if we conſider the nature of their operation, great caution is neceſſary before we adminiſter them; for "though they may "for a while alleviate the pain, they retard and ſuſpend "the periſtaltic motion of the bowels ſo much, as to allow "the inteſtines to fall into conſtrictions, render the cauſe "of the complaint more obſtinate, and prevent the opera-"tion of purgatives," a thing ſo devoutly to be wiſhed in theſe caſes, and without which little good can be expected. See more on this head, Cullen's *Practice of Phyſick*, vol. iv. pag. 28.—Glyſters ſhould be given every hour, or every two hours, at firſt the milder ones, as warm water in pretty large quantity, or that in which ſalt has been diſſolved; purgative glyſters, thoſe mixed with turpentine, or tobacco ſmoke thrown into the inteſtines according to the urgency or obſtinacy of the attendant circumſtances; ten or twelve grains of calomel formed into a pill may be given, and a few hours after a purgative glyſter injected, which will aſſiſt the operation, or it may be adminiſtered in ſmaller doſes, and oftener repeated: care always being taken before theſe irritating purgatives have been given, to have ſufficiently guarded againſt inflammation by ſanguinary depletion.

When we are certain there is no inflammation attendant, opiates may be exhibited, but they ſhould be joined with purgatives, or purgatives ſhould immediately ſucceed them. Linſeed tea, or that made with the roots of marſhmallows, barley water, or ſome ſuch mild ſheathing diluents ſhould be uſed as common drink, and great care taken for ſome days after the recovery to perſiſt in ſuch a courſe as may prevent a relapſe.—On this ſubject ſee *London Medical Obſervations and Inquiries*, vol. iv. pag. 223, &c.—Macbride's *Introduction*;—*Celſus*;—*Hoffman*. *W*.

and vomiting are gone off, I give a dram of the greater *pil. cochiæ*, diſſolved in *mint-water*, and direct draughts of *mint-water* to be frequently taken during the operation of the purge, in order to prevent the return of the vomiting. Chap. 4.

58. I have obſerved, that it is in vain to give this, or any other the ſtrongeſt kind of purge, before the ſtomach be ſtrengthened and reduced, together with the inteſtines, to its natural motion; for otherwiſe all cathartics will prove emetic, and conſequently be more prejudicial than ſerviceable; and this reaſon induced me to forbear purgatives, till I had firſt uſed ſtomachics a while.

59. The diet I direct is very ſparing; for I allow the patient only to ſup ſome ſpoonfuls of chicken broth, twice or thrice a day, and confine him to his bed during his illneſs, and till the ſigns of recovery appear, directing him to continue the uſe of the *mint-water* for a conſiderable time after the cure, and to keep the belly warm, by wearing a double flannel, whereby a relapſe may be prevented, which happens more frequently in this than any other diſeaſe.

60. In theſe few particulars conſiſts my whole method of curing this diſeaſe, which, it is hoped, no one will deliberately contemn on account of its ſimplicity and the want of elegance of language, and the pomp of medicine to recommend it.

61. Thus I have enumerated the ſymptoms that uſually happen in this fever; but there are others I ſhall not now mention, as they are of leſs moment, and require no particular treatment, but go off ſpontaneouſly, if the fever

Sect. 1. be skilfully treated. And let this suffice for the continued fever of this constitution, with its symptoms.

CHAP. V.

Of the intermitting Fevers of the Years 1661, 1662, 1663, 1664.

1. THE constitution, as we observed above, that prevailed through all the preceding years, having so eminently favoured the rise of all kinds of intermittents, I will here set down the observations I then made concerning them, and also add those which relate to the few intermittents that have happened sporadically since that time, that I may not break in upon the history of the following years.

The three stages of intermittents to be considered.

2. And first it must be observed, that, *in order to conjecture something, at least, of their nature*,* regard must be had to three different stages of the fits of intermittents; *viz.* (1.) the *shaking*; (2.) the *ebullition*; (3.) the *despumation*.

Description of the first.

(1.) I judge the *shaking* proceeds from this cause, that the febrile matter, which being not yet turgid, was in some measure assimilated by the blood, becomes at length not only useless, but prejudicial to nature, raises a kind of violent motion in the mass, and endeavouring, as it were, to escape, causes a chilness and shaking; which shew how pernicious in its nature

* *In order to conjecture something of their nature, &c.* We have before spoken of the general received opinion relative to the cause of fever, in which that of intermittents, as well as others, are included, pag. 24, note *; a repetition is here therefore unnecessary. *W.*

the

the febrile matter is to the body, in the same manner as purging draughts in weak stomachs, or poison casually swallowed, immediately occasion a shivering, and other symptoms of the same kind. Chap. 5.

3. (2.) Nature, therefore, being by this means irritated, raises a *fermentation* in order to expel the enemy with less difficulty; this being the common instrument she uses to free the blood of its morbid particles, as well in fevers, as in some other acute diseases; for by means of the fermentation the separated parts of the peccant matter, that were equably mixed with the blood, begin to be united together in some measure, and consequently may be more easily moulded, so as to be fitted for despumation. That this is probably the case, appears from the death of such as die in the fit, which generally happens in the first stage of it, *viz.* during the *shaking*, or *cold fit*; for if they survive till the effervescence, or hot fit comes, they escape at least for that time. Both these stages are severe, (3.) but in the third, namely the *despumation*, all the symptoms first grow milder, and after go off entirely. *By despumation I mean no more than the expulsion or separation of the febrile matter, now in a manner overcome, when what is thrown off partly resembles yeast, and partly lees, as may be seen in other liquors.* The second. The third.

4. Having premised these particulars, I proceed next to shew why the fit returns, though the patient now seems to be out of danger; and this arises from the febrile matter not being wholly thrown off, whence the latent remainder re-appears, according to the nature of the fits, and occasions fresh disturbance, running through Whence the return of fit.

Sect. 1. through the ſeveral ſtages above deſcribed. How it happens that this latent remainder (not ſufficiently overcome by the preceding effervescence, and conſequently not expelled with the other peccant matter) does not proceed with the ſame regularity in every intermittent, but ſometimes require one day, ſometimes two, and at others three days, before it comes to maturity, and cauſes a new fit, is what I cannot account for; neither do I know that any one has hitherto ſufficiently explained this ſecret operation of nature.

5. I do not deſire to be called a philoſopher, and as for ſuch as conceive they have a right to this title, and, upon this account, may poſſibly cenſure me *for not having attempted to dive into theſe myſteries*,* I adviſe them to try their faculties

* *For not having attempted to dive into theſe myſteries, &c.* A ſearch into efficient or material cauſes is doubtleſs one of the moſt idle and impertinent uſes we can make of the powers of our underſtanding; for as they lie far beyond the reach of the ſenſes, we cannot but fail in the attempt; and it is not improbable, on a ſuppoſition we could come at them, that they might rather ſerve to gratify a vain curioſity, than advance us in uſeful knowledge. Would it not then be acting more prudently to reſolve them into the will and pleaſure of the Creator, without preſuming to penetrate into what he ſhould ſeem to have covered with an impenetrable veil; and rather apply ourſelves to mark their effects and operations, ſo as to draw from thence a ſet of directions, which, being built on ſo ſolid a foundation, might, if judiciouſly applied, and varied as particular circumſtances may require, ſerve to conduct us with ſafety and ſecurity in moſt occaſions? Had the generality of phyſicians, for inſtance, who for many ages paſt have racked their brains to no purpoſe, in order to diſcover the remote and latent cauſes of ſimple and obvious effects, made this the ſole ſcope and end of their reſearches, what a fund of beneficial knowledge would have been amaſſed by this time!

It

faculties in accounting for the various works of nature that every where ſurround us, before they go about to teach others. I would fain know, for inſtance, why a horſe comes to his full growth in ſeven years, a man in twenty-one; why ſome plants uſually flower in *May*, and others in *June*; not to mention innumerable other effects, whoſe cauſes are as hard to be diſcovered. Now if the learned ingenuouſly confeſs their ignorance in theſe points, I ſee no reaſon why I ſhould be cenſured for being ſilent, in a matter not leſs obſcure, and perhaps wholly inſcrutable; eſpecially as I am perſuaded that nature proceeds in this caſe, as in all others, with a certain regularity and uniformity; the matter of tertians and quartans being not leſs ſubject to, and governed by the laws of nature, than all other kinds of bodies are. Chap. 5.

Their ſymptoms and particular kinds deſcribed.

6. *All intermittents, in general, begin with a chilneſs* * and ſhaking, which are ſoon followed by heat, and then by ſweat. The patient uſually vomits both in the cold and hot fit, complains of

It may ſeem ſtrange, that in ſo great a length of time they ſhould not have perceived that they have no adequate faculties for thoſe ſublime inquiries, but that all the truly uſeful, or ſcientifical knowledge they can ever hope to gain, is only to be had from obſervation and experience, every thing elſe being eternally liable to be controverted, as exiſting only in the imagination.

* *All intermittents, in general, begin with a chilneſs, &c.* With regard to the arrangement of this we ſhall ſpeak hereafter. But it is neceſſary here to give a more circumſtantial and accurate account of the natural progreſs of an intermittent paroxyſm, as we think with Dr. Swan, that it is too looſely and imperfectly deſcribed in this place.—

The fit conſiſts of three ſtages, the firſt, COLD; the ſecond, HOT; and the third, SWEATING.—

Upon

Sect. 1. of great ſickneſs, is thirſty, his tongue dry, &c. And theſe ſymptoms abate in the ſame degrees as the ſweat increaſes, which, becoming more copious, ends the fit. And now the patient continues

Upon the onſet of the firſt, there is produced a general languor, the pulſe becomes ſometimes ſlower, and always weaker than before; but as the cold comes on it is ſmaller, very frequent, and often irregular. As the heat ſucceeds, the pulſe becomes more regular, hard, and full, and in theſe reſpects increaſes till the ſweat breaks out; and as it flows, the pulſe becomes ſofter, and leſs frequent, till the ſweat ceaſing altogether, it returns to its uſual ſtate.

The reſpiration during the cold ſtage is ſmall, frequent, and anxious, and ſometimes attended with a cough; the hot ſtage approaching, the reſpiration becomes fuller and more free; but continues ſtill frequent and anxious, till the flowing of the ſweat relieves the anxiety, and renders the breathing leſs frequent and more free; the ſweat ceaſing, the breathing returns to its ordinary ſtate—The appetite for food ceaſes in the ſtate of languor; and thus continues during the whole of the paroxyſm; with an averſion from all ſolid, and particularly animal food: as the cold ſtage advances, a ſickneſs and naufea come on, often increaſing to a vomiting of a matter for the moſt part bilious; which vomiting brings on commonly the hot ſtage; in which, as it advances, the naufea and vomiting abate, and ceaſe altogether when the ſweat breaks out.

The patient is thirſty:—during the cold ſtage, the urine is almoſt colourleſs, and without cloud or ſediment; in the hot it becomes high coloured, though ſtill clear; afterwards, during the free flow of ſweat, depoſits a ſediment, commonly lateritious, and continues to do ſo ſome time after the paroxyſm is finiſhed. With reſpect to ſenſation and thought—during the cold ſtage the ſenſibility is often greatly impaired; but when the hot ſtage is formed, the ſenſibility is recovered, and often conſiderably increaſed.—In the cold ſtage alſo, attention and recollection become difficult, and continue more or leſs ſo during the whole paroxyſm; and hence ſometimes comes on a delirium, but that more frequently after the commencement of the hot ſtage.—Drowſineſs and ſtupor ſometimes attend the cold ſtage, and often increaſe to a degree which may be called comatoſe,

continues tolerably well *till the fit returns at the* Chap. 5.
usual time;* which in a quotidian, happens once in the space of twenty-four hours, or a natural day; in a tertian, every other day; and in a quartan, every third day; calculating from the beginning of one fit to the beginning of the next. But the two latter are frequently doubled, so that a tertian comes every day, and a quartan two days successively, the third being the intermediate, or well day; and sometimes, when it proves a triple quartan, it comes three days successively, the intermittent deriving its name from the manner of its first appearance.

7. This redoubling of the fits is sometimes caused by the too great quantity and activity of the febrile matter; in which case the adventitious fit precedes the *original* one: but sometimes, when the patient is considerably weakened, and the violence of the fit abated, either by

Whence the redoubling of the fits.

comatose, or apoplectic.—In this stage, sometimes early, comes on a head ach, which, though, is more commonly felt after the hot stage is formed, and then usually attended with a throbbing in the temples; this head ach gradually goes off, as the sweat flows more freely. With this complaint there are pains of the back, and some of the large joints commonly attendant, which preserve the same course as the head ach."——See Cullen's *Practice of Physic*, vol. i. pag. 69, &c. *W.*

* *Till the fit returns at the usual time*, &c. There are some distinctions made by authors in respect to the terms relative to this point—From the beginning of one fit to the commencement of the succeeding one, is called INTERVAL; from the termination of one to the beginning of another, INTERMISSION—So that the febrile paroxysm is included in the former, in the latter omitted; hence we say the intervals of a QUOTIDIAN occupies twenty-four; of a TERTIAN, forty-eight; of a QUARTAN, seventy-two hours: The intermission not so regular, depending upon the duration of the paroxysm. *W.*

too

Sect. 1. too free an uſe of cooling medicines, or profuſe evacuations, the adventitious fit follows the *original* one, and is both milder and ſhorter than it. In the former inſtance, the violent motion of the matter does not wait for the due time of its return, and finiſhes its deſpumation in a ſhorter time; but in the latter, the blood being too weak to throw off the febrile matter at once, immediately cauſes a freſh fit, in order to expel the remainder. And perhaps upon theſe two contrary cauſes, both the anticipation, and the ſlower approach of the fits, in common regular intermittents, may depend: both which frequently happen in quotidians.

All intermittents either vernal or autumnal.

8. Intermittents are either *vernal*, or *autumnal*; though ſome ariſe in the intermediate ſeaſons; but as theſe are not ſo frequent, and may be referred to Spring or Autunn, according as they approach neareſt to either, I ſhall comprehend them all under the two kinds above mentioned. Theſe diſeaſes make their firſt appearance in *February* and *Auguſt* particularly; though ſometimes they appear ſooner or later, according as the air is more or leſs diſpoſed to produce them, which, of courſe, renders them more or leſs epidemic. The *autumnal* intermittents of 1661 were an inſtance of this; for I remember a woman was that year ſeized with a quartan upon St. *John*'s day, and numbers very early in the ſeaſon; and afterwards in the declenſion of the year, theſe diſtempers became very epidemic.

The two kinds differ eſſentially.

9. This diſtinction of intermittents is ſo neceſſary, that unleſs it be well attended to in practice, no juſt prognoſtic can be formed of their continuance, nor a method of cure directed, ſuitable to the different nature, both of the ſeaſons,

ſons, and diſorders. It muſt be owned, that the intermittents of both ſeaſons do not greatly differ, either as, (1.) to the manner of their attack; which begins with a ſhaking, is ſoon ſucceeded by heat, and at length goes off with ſweat; or (2.) the difference of their appearance, in which reſpect ſome are tertians both in ſpring and autumn: and yet I judge that they differ eſſentially from each other. Chap. 5.

Vernal intermittents whence, and their progreſs.

10. I will begin with *vernal* intermittents, moſt of which are either *quotidians*, or *tertians*, and appear ſooner or later, according to the various diſpoſition of the ſeaſon. For the ſpirits being concentrated by the winter's cold, gather ſtrength in their receſs, and in this lively ſtate are invited out by the heat of the approaching ſun, and, being mixed with the viſcid juices, wherewith nature had ſtocked the blood during that ſeaſon, (which, however, are not ſo viſcid as thoſe whoſe fluid parts have been dried up and parched by the preceding heat in *autumn*,) are, whilſt they endeavour to eſcape, detained, and as it were entangled, and conſequently occaſion this *vernal ebullition*, in the ſame manner as is obſerved to happen upon expoſing bottles filled with beer to the fire, after having been long kept buried in ſand, or in a cool cellar, whence the liquor begins to work, and endangers the burſting of the bottles. The blood, thus diſpoſed, attempts its depuration, and, by means of its volatile ſpirits, finiſhes it in a ſhort time; unleſs the juices be too viſcid, ſo as to check the fermentation: and though this ſhould happen, yet the vernal effervеſcence ſeldom proves continued and regular, but generally intermits, and is divided as it were into ſeveral

Sect. 1.

veral fits. For the blood being now turgid with these rich spirits, nature hurries on her work, and by particular fits perfectly completes the secretion of some parts, before she finishes the universal separation. And this seems to be the reason that there are but few continued fevers in spring, and particularly in its decline, unless an *epidemic* constitution happens to prevail; the fermentations which arise at this time, being either suddenly checked, or hastening to an intermission; or lastly, such parts of the juices as were best fitted for separation, are speedily and violently thrown upon some other part of the body; whence quinsies, peripneumonies, pleurisies, or the like dangerous diseases, immediately arise, especially at the decline of the spring.

Few continued fevers in spring.

Vernal intermittents seldom lasting, and always salutary.

11. I have already observed that vernal intermittents seldom last long, and always prove salutary; so that the aged or infirm can scarce be endangered thereby, without very unskilful treatment. But I have sometimes known vernal tertians prolonged to autumn, by improper bleeding and purging, along with an unsuitable regimen; but this season being very contrary to their nature, immediately checked them, the patient in the mean time being almost worn out by the frequent redoubling, and long continuance of the fits, so that he seemed in great danger, though, as far as I have hitherto been able to observe, he always recovered.

12. Neither have I met with those dangerous symptoms, in such as are cured of this disease, which, as shall hereafter be shewn, succeed inveterate autumnal intermittents; *viz.* a mortal inflammation of the tonsils, a hard belly, drop-

fical ſwellings, &c. But I have often found, when the patients have been extremely debilitated by the long continuance of the diſeaſe, the doubling of the fits, and repeated evacuations, that they have been ſeized with a madneſs, when they began to recover, which went off proportionably as they gathered ſtrength. Chap. 5. Sometimes ſucceeded by a madneſs.

13. But autumnal intermittents differ very much from vernal ones. For though a tertian in thoſe years, when it is not epidemic, and ſeizes healthy perſons, does ſometimes go off in a ſhort time, and is accompanied only with the uſual ſymptoms of vernal tertians; yet when it is epidemic, and ſeizes the aged, or perſons of an ill habit of body, it is not without danger, and laſts two or three months, and perhaps even to the following ſpring. But quartans are more dangerous and obſtinate than tertians, for old perſons are ſometimes deſtroyed by a few fits; in which caſe they generally die in the cold fit, as we have already obſerved. Thoſe who have juſt entered upon old age are not indeed in ſo much danger of ſinking under the diſeaſe in ſo ſhort a time, but are ſcarce ever cured before the return of the ſame period of time of the following year wherein they were firſt ſeized: and ſometimes this diſeaſe leaves ſome diſorder behind it, that in the end proves mortal. An autumnal epidemic tertian ſometimes dangerous.

14. A quartan now and then changes its face, and likewiſe produces abundance of morbid ſymptoms, as the ſcurvy, a hard belly, a dropſy, &c. But young perſons are better able to bear this diſtemper, from which they are ſometimes freed about the winter ſolſtice; though it happens more frequently, particularly when bleeding and purging have been uſed, that A quartan ſometimes ſucceeded by dangerous ſymptoms.

Sect. 1. their recovery is prolonged to the ſubſequent *vernal equinox*, or even the ſucceeding *autumn*. I have often wondered to ſee infants ſtruggle with this diſeaſe for ſix months, and at length recover.

Soon go off when it comes a ſecond time.

15. It is worth obſerving here, that *if any perſon be ſeized with a quartan*, * who has had it before, though long ſince, it terminates ſpontaneouſly after a few fits, of whatever age or conſtitution he be.

Vernal intermittents, how to be treated.

16. I have always been of opinion that vernal intermittents might be wholly left to themſelves, having never known a ſingle perſon deſtroyed thereby; and on the contrary have obſerved *that the attempting their cure*, † eſpecially by evacuating medicines, tended only to render them more obſtinate. But if the patient will not be ſatisfied, unleſs ſomething be done to relieve him, various methods may be ſucceſs-

* *If any perſon be ſeized with a quartan, &c.* It is known from obſervation, in the marſhes of Eſſex, the fens of Cambridgeſhire, and other places where intermittents are endemial, that thoſe who have laboured once for a ſeries of time under this complaint, which will ſometimes continue two or three years with ſhort intervals, and eſcape the fatal conſequences, will afterwards live totally free, or ſubject only to very ſlight attacks, which ſpontaneouſly diſappear; though this is not always the caſe. *W.*

† *Attempting their cure, &c.* In general, vernal intermittents are not dangerous, and may be ſuffered to go off ſpontaneouſly; but ſometimes phyſicians find it neceſſary to attempt their cure; otherwiſe they are apt to prove inveterate in ſome conſtitutions, and occaſion other obſtinate diſorders. And it is obſervable, that they are commonly cured by evacuating medicines, ſuch as vomits, gentle laxatives, ſudorifics, bliſters, and ſometimes bleeding. So that it may ſeem ſtrange our author ſhould except againſt a method, which yet in the next paragraph he lays down for ſafe and ſucceſsful. *W.*

fully

fully employed for this purpose, as I have frequently experienced. Chap. 5.

17. A vomit seasonably given, so as to have done working before the fits begin, sometimes proves a cure; especially if a moderate dose of syrup of white poppies, or any other opiate, be given after the operation is over. Sometimes diaphoretics cure, especially in *vernal quotidians*, by promoting the sweat that breaks out towards the end of the fit, provided the patient be well covered, and the sweat continued as long as he can bear it; for the juices not being very thick in this season, the disease is perfectly cured, which would otherwise return: but this never happens in autumn. I have also sometimes cured *tertians* by giving glysters upon three or four of the intermediate days. Sometimes cured by a vomit. Sometimes by glysters.

18. *But if bleeding be used too freely*,* which inconsiderate persons easily yield to on account of the season; or the spirits, which should directly attempt the business of despumation, be so far impoverished by the preceding weakness of the patient, as to be unable to perform it, *vernal tertians* may then withstand all our endeavours, and perhaps prove as lasting as *autumnal ones*; though they do not usually continue so long, but either Copious bleeding retards the cure.

* *But if bleeding be used too freely, &c.* Unless at their first approach they put on the appearance of continued fevers, attended with symptoms of plethora, and strong tone of the vascular system, there can scarce be a necessity for bleeding at all, for that would reduce the powers of the constitution to too low an ebb, and be highly prejudicial, by increasing vascular debility, preventing the efflux of the humours to the superficies of the body, and constituting a disease of long continuance: but where the symptoms approached near to a fever of the continued type, as such should it be treated.—See Note, chap. i. pag. 3. *W.*

Sect. 1. go off ſpontaneouſly, or ſoon give way to the uſe of a few gentle remedies.

Autumnal intermittents deſcribed.

19. But *autumnal intermittents*, of which I am now to treat, are not ſo eaſily conquered. When the conſtitution is epidemic, they uſually appear about *June*, but otherwiſe not till *Auguſt*, or the beginning of *September*, and very rarely in the following months. When numbers are ſeized at the ſame time, we may generally obſerve that the fits come exactly in the ſame manner, and at the ſame hour of the day, a little ſooner, or later perhaps, unleſs this diſorder be diſturbed in ſome perſons by remedies that either haſten or retard the coming of the fit.

Hard to be diſtinguiſhed.

20. It muſt likewiſe be noted, that it is a difficult matter at the firſt appearance of intermittents, eſpecially of thoſe that are epidemic in *autumn*, to diſtinguiſh them exactly; becauſe, at this time, they are accompanied with a continued fever; and for ſome time afterwards, unleſs great attention be given, nothing more than a remiſſion can be diſcovered; but by degrees they perfectly intermit, and put on a form entirely agreeable to the ſeaſon of the year.

21. They are, however, either *tertians* or *quartans*; (but the latter are deſervedly accounted the genuine product of *autumn*) and in reality, ſo much alike, that they frequently vary, at leaſt for a time, from one to the other; ſhortly after, perhaps, re-aſſuming their priſtine form. But *vernal tertians* never aſſume the ſhape of *quartans*, becauſe they differ widely from each other; nor have I ever ſeen a *quotidian* happen in this ſeaſon, unleſs a *double tertian, or a triple*

a triple quartan * ſhould ſeem to deſerve that name. Chap. 5.

22. *I judge that theſe intermittents are occaſioned* † nearly in the following manner; *viz.* as the year advances the blood is likewiſe proportionably enriched, (juſt as vegetables ſhew the courſe of the year by their growth and decay) till it comes to its height, and ultimate vigour; after which, keeping pace with the time of the year, upon the declenſion thereof, it alſo declines; and more particularly when ſome accidental cauſe contributes thereto, as great loſs of blood, taking cold, the uſe of indigeſtible and excrementitious food, unſeaſonable bathing, and the like. For the blood, being in this depreſſed ſtate, is ſubject to every morbific impreſſion that any conſtitution of the air may communicate to it, which, at this time, tends to produce intermittents, epidemically. And to this the immediately ſucceeding ebullition tends, which The cauſe of autumnal intermittents.

* *Double tertian or a triple quartan, &c.* By the firſt is meant, a TERTIAN returning every day, paroxyſms being unequal, though every other day ſimilar.

By the ſecond, a QUARTAN coming on every day, the paroxyſms being ſimilar every fourth day.

But whoever is deſirous of being more minutely informed of the different varieties occurring in intermittents will find the explanations accurately given in SAUVAGES's *Noſologia Methodica*, or CULLEN's *Synopſis Noſologiæ Methodicæ*. *W.*

† *I judge that theſe intermittents, &c.* This account of the cauſe of *autumnal intermittents* is not a little obſcure and unſatisfactory; and it may ſeem ſtrange that this great man, who was ſo profeſſed an enemy to hypothetical ſpeculations, ſhould, notwithſtanding, ſo frequently attempt to reaſon upon matters, which lie ſo far out of the reach of the acuteſt underſtanding, that a little attention to the ſubject will convince us of the impoſſibility of arriving at any certain and demonſtrative knowledge thereof.

Sect. 1. happening sometimes in an extremely vitiated blood, occasions a bad fever, accompanied with several malignant and dangerous symptoms. But from whatever cause it arises, the blood, having lost a considerable share of its spirits, and being greatly parched by the heat of the preceding summer, will perform its ebullition slowly, and require much time to finish its depuration.

Whence so hard to cure.

23. Now, to shew clearly how difficult it is to cure autumnal intermittents, the dissimilitude between the continued and intermittent fevers of this season must be well considered; which chiefly consists in this, that continued fevers carry on the effervescence once begun, regularly and uninterruptedly to the end of the disease; whilst intermittents perform the business by parts, and at different times; but in both the effervescence is finished in about three hundred and thirty six hours, the precise time that is ordinarily required for the depuration of the mass of blood in a human body, when the business is wholly left to nature; in the same manner as wine, beer, and cyder have each a peculiar time wherein their depuration is finished.

The time spent in the effervescence.

The same in continued fevers and quartans;

24. But though the blood sometimes in *intermittents*, as it happens in a *quartan*, attempts, and at length finishes its depuration in six months; yet by an exact computation it will appear that there is no more time employed here, than is, for the most part, naturally spent in completing the depuration in continued fevers. For fourteen times twenty-four hours, or fourteen natural days, make three hundred and thirty-six hours; so that allowing five hours and a half for the duration of every fit of a quartan, the whole will be equal to fourteen days, that is, three hundred and thirty-six hours. If now it should be said that a quartan

quartan ſometimes laſts above ſix months, which alſo holds in other intermittents; I anſwer, that the continued fevers of this conſtitution are likewiſe often prolonged beyond fourteen days: but, in both caſes, if care be taken to keep up the efferveſcence in a proper manner throughout the courſe, and eſpecially towards the declenſion of the diſeaſe, the deſpumation will be finiſhed in the time above mentioned; whereas, if the fermentation be unſeaſonably checked by cooling medicines, or glyſters, in this ſtage, no wonder the diſeaſe proves laſting: the procedure of nature being by this means diſturbed, and the texture of the blood in a manner looſened or broken, ſo that it cannot effectually attempt the deſpumation; which alſo ſometimes happens ſpontaneouſly in weakly conſtitutions, unleſs drooping nature be aſſiſted with cordials to enable her to finiſh the buſineſs of deſpumation. Chap. 5.

25. It muſt likewiſe be further obſerved here, that what has been ſaid of the continuance of the fermentation is to be underſtood only of ſuch fevers as have arrived to a fixed ſtate; for there are fevers, both of the continued and intermittent kind, which are of a variable nature, and do not reach the limited period in their efferveſcence. Such are thoſe that ſometimes ariſe from a ſlight error in the non-naturals, as in aliment, drink, air, and the like: but they often terminate in a ſhort time; as they alſo do in young perſons whoſe blood is pure, and full of ſpirits. For as their fevers proceed from a certain ſpirituous, ſubtle, and volatile matter, they finiſh their fermentation ſpeedily, and go off. but different in ſome fevers.

26. Now in order to raiſe a fermentation, it is neceſſary that the fermentable matter, whether blood, wine, or any other liquor, be of ſo viſ- The requiſites for fermentation.

Sect. 1. cous and tenacious a nature, as to detain, and, as it were, envelope the ſpirits therein contained; yet ſo as they may be able to be moved briſkly in the liquor, but not to fly off. Let it be remembered, however, that the liquors abovementioned muſt not be ſo viſcous, as to oppreſs the ſpirits entirely, and ſo prevent their being moved at all.

Intermittents, how to be treated.

27. Theſe particulars being laid down, which I conceive are rational and well grounded, it will not appear ſtrange that I propoſe no other method of cure in intermittents than ſeems neceſſary to be uſed in continued fevers, to finiſh the buſineſs of their deſpumation in a proper manner; ſince they differ, as to the manner wherein nature uſually expels the morbid matter: *viz. by means of an effervescence limited to a fixed time:* though with reſpect to their kinds and the peculiarity of their nature, I own they differ greatly from continued fevers, and from each other likewiſe. The curative indications therefore muſt be taken either (1.) from a careful obſervance of the ſteps which nature takes to overcome the diſeaſe, that ſo we may quicken the fermentation already raiſed, and by this means recover the patient; or (2.) we muſt endeavour to inveſtigate the ſpecific cauſe, in order to remove the diſeaſe by effectual and ſpecific remedies.

28. I have tried both methods with great care and application; but have not hitherto been able to cure *autumnal intermittents* before they had finiſhed their ſtated fermentation above ſpecified, however diſagreeable it has been to the patients to wait ſo long for their recovery. If therefore any one is poſſeſſed either of a certain method, or a ſpecific remedy that will not only ſtop the progreſs

progreſs of, but thoroughly cure theſe diſorders; Chap. 5.
I think he ought to diſcover it for the good of mankind; and if he does not, I will venture to ſay, that he neither deſerves the character of a good, nor of a wiſe man: for it is not acting the part of a good man, to convert to his private advantage what might prove ſo eminently ſerviceable to the public; nor of a wiſe man, to deprive himſelf of the bleſſing he might juſtly expect from heaven, by endeavouring to promote the public good. For honour and riches are held in much leſs eſteem by good men than virtue and wiſdom.

29. But though it be difficult to cure *autumnal intermittents*, yet I will ſet down what I have found do moſt ſervice in them. Frequent experience has taught me that it is very dangerous to attempt the cure by purging, (unleſs in the way hereafter to be mentioned) and eſpecially by bleeding: for in *tertians*, particularly in a very epidemic conſtitution, if bleeding does not prove a preſent cure, it prolongs the diſeaſe even in young, ſtrong, and otherwiſe healthy ſubjects; but aged perſons, after having long ſtruggled with it, are deſtroyed thereby, their death being generally immediately preceded by a mortal inflammation of the tonſils, as above mentioned. Again, bleeding cauſes thoſe ſymptoms to come ſooner, which, as we ſaid above, accompany autumnal intermittents at their decline, or directly ſucceed them; but it is ſo pernicious in *quartans*, as to occaſion the diſeaſe to laſt a year in young perſons, which otherwiſe would have gone off in ſix months. And in the aged, who, if bleeding had not been uſed, might have recovered in a year, there is danger of the diſeaſe being

Bleeding and purging unſafe in autumnal intermittents.

Sect. 1. being prolonged thereby beyond its ſtated time, and of its proving mortal in the end. What has been obſerved of bleeding holds alſo of purging, with this difference only, that the latter is leſs dangerous, unleſs it be frequently repeated.

The cure of autumnal tertians.

30. *I begin the cure of autumnal tertians* * in this manner: the patient being put to bed, and well covered, I endeavour to raiſe a ſweat by giving ſage poſſet drink about four hours before the coming of the fit; and as ſoon as the ſweat begins I give two ſcruples of the greater *Pil. cochiæ* diſſolved in an ounce of the following mixture:

Take of aqua vitæ, *a pint*; Venice *treacle three ounces*; *ſaffron one dram: let them ſtand together in infuſion for uſe.*

Theſe remedies being taken as directed, the ſweat is to be encouraged for ſome hours after the uſual time of the coming of the fit, with care to prevent checking it, which might otherwiſe be occaſioned by the operation of the purgative.

* *I begin the cure, &c.* There ſeems to be no neceſſity for any animadverſions on our author's mode of cure in this diſeaſe, it may be almoſt rejected in *toto*, except where he ſpeaks of the bark, which experience has proved to be the moſt certain remedy for intermittents yet diſcovered; and will always, I am perſuaded, cure, if it is given judiciouſly, and coupled with ſuch other medicines as the peculiar circumſtances of the conſtitution may require. Nor matters it of what ſpecies the intermittent may be; "for the diſ-"tinctions," according to the opinion of a modern profeſſor, "ſo often mentioned in the ſchools and by writers, ap-"pear not to be of much practical uſe, as the different "kinds ſo often alternate; which ſhews that the cauſe of "theſe different appearances of intermittents is not owing "to different miaſmata, but perhaps to ſome more change-"able circumſtances of the patient." See *Dr.* HOME's *clinical Experiments, &c.* pag. 12. *W.*

31. I have found this more successful in the cure of this disease, than the giving the common decoction, suited to the same intention, made with *gentian root, the tops of the lesser centaury*, &c. and a little *sena* and *agarick*. For as it causes two contrary motions at once, *viz.* sweating and purging, it produces the same effect as the decoction, by disturbing and interrupting the usual course of the fit; and is more effectual, and as safe. Thus I have cured abundance of autumnal intermittents, and could not find out a better method during these years.

Successfulness of the method.

32. When a *tertian* has varied its form, and is become a *double tertian*, on account of the patient's having been weakened, either by evacuations, or any other way, a sweat must likewise be raised, as above directed; (30) and at the same distance of time from the coming of the next fit, either by giving the remedy there recommended, or some other powerful sudorific, which may also be repeated in the succeeding genuine fit: but the *Pil. cochiæ* must be omitted, because it is unsafe, as well as useless, to weaken the patient more by purging, and by this means promote the doubling of the fits, when he has been already debilitated thereby. In extreme weakness from this cause I prescribe the following electuary:

Manner of treating a double tertian.

Take of the conserve of flowers of borage and bugloss, each an ounce; conserve of rosemary, half an ounce; candied citron-peel, and nutmeg, and Venice *treacle, of each three drams; confection of alkermes, two drams; mix them up into an electuary; of which let him take the quantity of an hazel nut, morning and night; drinking after it six spoonfuls of the following julap:*

The electuary.

Take

Sect. 1.

The julap.

Take of the diſtilled water of meadow ſweet, and treacle water, of each three ounces; ſyrup of cloves, an ounce; mix them together.

Inſtead of the julap I ſometimes give ſome ſimple plague water, ſweetened with ſugar; at the ſame time forbidding the uſe of glyſters, and allowing chicken broth, water gruel, &c. by way of diet.

Quartans, how to be treated

33. With reſpect to *quartans*, whoever is but ſlenderly ſkilled in phyſic, cannot, I conceive, be ignorant how unſucceſsful all the uſual methods of cure, hitherto directed, have proved, *unleſs by means of the bark*,* which yet more frequently

* *Unleſs by means of the bark, &c.* As bark is a medicine whoſe principal action is to give tone to the ſyſtem, and increaſe the power of vaſcular action, it may be neceſſary to obſerve, that in intermittents, which appear to have a tendency to put on the continued type, an over haſty adminiſtration of it may be unſafe, therefore we ſhould not fly to it in the very early ſtages; but rather defer its uſe, till we have paved the way by emetics, aperients, and diaphoretics: hence it is always judicious to wait till the patient has had two or three regular paroxyſms, then all danger will be avoided. It may be given in various forms, in cold or hot infuſions, extract, tincture, or in powder; the laſt is eſteemed the moſt efficacious, where the ſtomach can bear it; and the more we can throw in between the fits the better. The times of giving it has been different; but it is concluded by experience, that the moſt eligible is to begin its uſe in the ſweating ſtage of the paroxyſm, and continue it till the approach of the ſucceeding fit. This is proved by a ſet of experiments made by Dr. Home, and delivered to the public in his clinical hiſtories, to which we refer our readers. But in the cure of intermittents, various modes have been preſcribed in order to render the bark moſt certainly effectual; all which tend to prevent the acceſſion of the cold fit, and, of courſe, the conſequences. Some have adviſed a vomit to be given immediately before the paroxyſm; others opiates; whilſt others have given large doſes

quently checks, than cures the diſeaſe. For after it has lain dormant for two or three weeks, and the patient has had a ſhort reſpite from its violence, it returns afreſh as ſeverely as before, and cannot generally be conquered in a ſhort time, notwithſtanding the bark be frequently Chap. 5.

doſes of powerful ſtimulants alone, or joined with opiates. I have ever found, during a courſe of twenty-five years practice, the beſt mode is giving an emetic before, and beginning the uſe of the bark, or ſoon as poſſible after the fit; at the ſame time continuing it liberally till the ſucceeding paroxyſm. But it muſt be obſerved, that joining it with other different medicines has appeared to add much to its efficacy. I have, therefore, ever conſidered the ſtate of my patient's conſtitution, and as I have found it ſubject to particular affections, coupled ſuch medicines with the bark, as were calculated to relieve, in other caſes, ſuch conſtitutional defects, viz. If the patient was young and vigorous, having premiſed bleeding and an emetic, with ſome gentle aperients, I generally join ſome of the neutral ſalts, particularly ſal ammoniacus; if the motion of the vaſcular ſyſtem was torpid, volatiles and cordial ſtimulants; if the patient was ſubject to hyſteric affections, fetids and antiſpaſmodics; if hypochondriac, myrrh, chalybeates, &c. and I have more than once been ſucceſsful by theſe means, where the bark alone had been given, though copiouſly, yet unſucceſsfully. In children afflicted with intermittents it has been ſometimes difficult to perſuade them to take the bark, owing to the diſagreeableneſs of the taſte; but this difficulty I have known conquered by mixing the powder with cream, and ſweetening the compoſition with ſugar, and to this has the diſeaſe yielded. Should the bark prove purgative, a few drops of tinctura opii given in each doſe, or a ſmall portion of confectio opiata, has remedied that inconvenience. When the bark cannot be taken internally, it may be externally applied, in plaiſters of the extract, to the wriſts; the powder quilted in callico and worn next the ſkin, or thrown into the inteſtines by way of glyſter.

The red bark has been eſteemed more effectual than that formerly uſed, and I think it anſwers better, and in ſmaller quantities, as far as I have been empowered to obſerve it. An account of which has been publiſhed by Dr. Saunders, in his *Obſervations on the ſuperior Efficacy of the Red Bark*, 1788. *W.*

Sect. 1. repeated. This, however, shall not hinder me from communicating what I have experienced in relation to the method of giving it.

The bark, how to be given.

34. (1.) The greatest caution must be had not to give it too early, namely, before the disease be in some measure spontaneously abated, unless the extreme weakness of the patient requires it to be given sooner; for the giving it too soon may render it ineffectual, and even fatal, if a sudden stop be thus put to the vigorous fermentation raised in the blood in order to its despumation. (2.) We must not order purging, much less bleeding, in order to carry off a part of the febrile matter, and render the bark more effectual; for they both weaken the tone of the parts, whence the disease returns so much the more speedily and certainly, after the virtue of the bark is spent. It were better, in my opinion, to impregnate the blood with this medicine by degrees, and at distant intervals from the fit, rather than endeavour to stop it at once, just upon its coming; for by this means the bark has more time to produce its full effect in, and, besides the mischief is avoided that might happen by putting a sudden and unseasonable stoppage to the immediately approaching fit. (3.) The bark must be repeated at short intervals, that the virtue of the former dose may not be entirely gone off before another be given; and by repeating it frequently, the disease will, at length, be perfectly cured.

35. These reasons led me to prefer the following method of giving the bark:

The electuary.

Take of the Peruvian *bark, one ounce; syrup of roses, two ounces; make an electuary thereof; take the quantity of a large nutmeg every morning*

ing and night, on the intermediate or well days, till the whole be taken; and let it be repeated thrice, interposing a fortnight between each time. Chap. 5.

36. The bark might perhaps prove as successful in *vernal* and *autumnal tertians* as it does *quartans*: but, to speak ingenuously upon this occasion, in children and young persons, affected with either of these diseases, I think it best to forbear the use of medicines, and make no change as to air and diet; having hitherto found no inconveniency in leaving the cure wholly to nature, at which I have often been surprized, especially in infants; for the depuration of the blood being finished, these distempers go off spontaneously. But contrariwise, if (1.) a slender diet be directed; or (2.) purgatives be now and then given, as they generally are, under pretext of opening obstructions, and discharging the humours lodged in the first passages; or (3.) especially, if bleeding be used in an epidemic constitution, the disease will be considerably prolonged, and also accompanied with several dangerous symptoms. Medicines not needful in children and young persons.

37. But in aged persons, affected either with *autumnal tertians* or *quartans*, there is danger of these diseases becoming not only obstinate, but mortal; for which reason, if the bark and every other method prove ineffectual to a cure, nature must at least be supplied with such helps, as may enable her to finish her work. For doubtless, in weak bodies, unless the fermentation be kept up by cordials, a strengthening diet, wormwood wine, and the like, the patient will be debilitated by irregular and ineffectual fits, and the disease continue, till a violent fit comes, which, by reason of his extreme weakness, may destroy him The aged require cordials, and a strengthening diet.

Sect. 1. him in the cold fit. And this frequently happens in aged perſons, who have been weakened by a long courſe of purgatives; whereas they might have been ſupported, at leaſt for a ſhort ſpace, by ſome ſufficiently ſtrong cordial.

And change of air.

38. When the time required for the deſpumation of the blood is finiſhed, or even earlier, perſons in years ſhould remove to a very different air, or which is better, to a warmer climate, or at leaſt leave the place where they were firſt ſeized with this diſeaſe. It is very ſurprizing *how much a change of air conduces to a perfect cure* * at this juncture, but before it is not only needleſs but improper. For though a perſon were to go to a warm *ſouthern* climate, the blood, notwithſtanding, being once reduced to this morbid ſtate, muſt neceſſarily finiſh its depuration, which would vainly be expected from breathing a new and unuſual air, till the motion thereof be mended, and ſo far perfected, as to be capable

* *The change of air conduces to a perfect cure, &c.* This has been abundantly confirmed by experience; for numberleſs patients have recovered by removing into an air, different to that in which the diſeaſe was contracted and continued: perhaps the removal into that which is warmer may be the moſt ſalutary; but if that cannot be accompliſhed, any other air, where the change is conſiderable, will prove effectual. I have known a gentleman who was ſeized with the ague in London, being under the neceſſity of viſiting the marſhes of Eſſex, where intermittents are endemial, perfectly recover during his reſidence there: though one would not recommend ſuch a change of ſituation, ſtill it affords a ſtrong proof of the utility of atmoſpheric influence: and I cannot avoid being of Dr. SWAN's opinion, "That it is "needleſs, if not dangerous, to defer the change of air, "till the conſtitution be nearly worn out, which may probably be the caſe before the diſtemper be ſo far ſpent, as "SYDENHAM ſeems to think requiſite, in order to make an "attempt of this kind with ſafety and certainty." *W.*

of

of recovering a healthful ſtate. Such a remarkable change of air, therefore, is to be deferred till the diſtemper can be removed; ſo that in a *quartan*, for inſtance, which aroſe in *autumn*, it ſhould be deferred till the beginning of *February*. Chap. 5.

39. *But if the patient does not care to change the air,** or cannot conveniently, he ought at this juncture to make uſe of a medicine of ſufficient ſtrength at once to promote, and, if poſſible, to finiſh the languiſhing fermentation; for which purpoſe I would adviſe the following: If not; the fermentation to be quickened.

Take of the electuary of the egg, or Venice *treacle, one dram and a half*; aqua cœleſtis, *or common* aqua vitæ, *two ounces: make a mixture, to be given two hours before the fit.* The mixture.

I have uſed this medicine with ſucceſs at the declenſion of the diſeaſe; but I acknowledge, that if ſuch heating medicines be given ſooner, they either double the fit, or change the diſeaſe to a continued fever; which has alſo been obſerved by *Galen*. They may be given with caution to young perſons in this diſeaſe, but are unſafe in children. But not till the declenſion of the diſeaſe.

* *If the patient does not care to change the air, &c.* In this ſtate of the diſeaſe the conſtitution becomes highly debilitated, and requires ſuch modes of treatment as may invigorate the ſyſtem, and enable it to ſtand againſt the power of the diſeaſe, till it ſhall have finiſhed its courſe; or the alteration of the ſeaſon put a period to its exiſtence, which is often the caſe in obſtinate intermittents. Gentle exerciſe, nutritious diet, and moderately cordial chalybeates, with a courſe of deobſtruent gums, ſeem here the moſt judicious auxiliaries. Perhaps it is from this practice of our author, the idea of giving opiates before the fit has been taken. On this ſtate it appears not conſonant to ſound reaſon, for they for a time render the habit too torpid, and afterwards leave it in too relaxed a condition—two circumſtances which ought particularly to be avoided. *W.*

Sect. 1. 40. Before I quit this ſubject, I muſt obſerve that what has been ſaid concerning the continuance of *autumnal intermittents*, and the time required for the deſpumation of the blood, is to be underſtood of that alone which nature uſually finiſhes by means only of the common medicines in uſe. For in treating of theſe matters my intent is not to diſcourage able and diligent phyſicians from ſearching after better methods of cure, and more effectual remedies in theſe diſeaſes; ſo far otherwiſe, that I do not deſpair myſelf of diſcovering, in time, ſuch a method or remedy.

Purging neceſſary after it is gone off,

41. *After the diſeaſe is cured, the patient muſt be carefully purged*;* for an almoſt inconceivable number of diſeaſes proceed from want of purging after autumnal intermittents, and I am aſtoniſhed this is ſo little noted and guarded againſt by phyſicians. For whenever either of theſe diſeaſes affected perſons in the decline of life, and purging was neglected, I could certainly foretel, that they would be ſeized with ſome dangerous

* *After the diſeaſe is cured, purging, &c.* It is right to have the body kept gently open by rhubarb, or ſome ſuch ſimilar medicine; but purging ſhould be avoided, as it diſpoſes greatly to a relapſe, and may produce dropſy; it is much better to repeat the uſe of the bark, from time to time, at proper intervals: though it may ſome time be thought neceſſary, perhaps, to have recourſe to cathartics, particularly when we have reaſon to ſuſpect the diſeaſe has left behind it any viſceral obſtructions; but in theſe caſes a conſtant uſe of chalybeates, with deobſtruent gums and bitters, or the warm antiſcorbutics, mixed with aperients, are moſt to be depended upon; as theſe medicines tend to open the obſtructions, promote digeſtion, invigorate the ſyſtem, and guard againſt the effects likely to be produced by the peculiar morbid miaſmata, by putting the conſtitution in ſuch a ſtate as to render it incapable of feeling their action. *W.*

diſeaſe

diſeaſe afterwards, though they themſelves had not the leaſt ſuſpicion of it, on account of their ſeemingly perfect recovery. Chap. 5.

42. But purging muſt by no means be uſed till the diſeaſe is quite cured, becauſe though the *natural parts*, or inteſtines, may ſeem to be cleanſed hereby from the foul humours left there by the intermittent, yet freſh matter will ſoon be ſupplied by the return of the fever, occaſioned by the violence of the cathartic, and the diſturbance of the ſubſtance of the juices; whence the diſeaſe will become more obſtinate. And daily experience ſhews that ſuch as, in the declenſion of the diſeaſe, comply with that theory, which makes the cure conſiſt wholly in removing obſtructions, and evacuating the melancholy humour, ſuffer much by repeated purges; which, whatever be the nature of the humour diſcharged, exaſperate the fever, and ſo render it much more inveterate than it would otherwiſe have been. But not before.

43. For this reaſon I never give a purge till both the perceptible fits are entirely gone off, and the alteration likewiſe (how ſlight ſoever it be) which is perceived on thoſe days when the fit uſually came, and even not till a month afterwards; and then I preſcribe a common laxative potion, ordering it to be repeated once a week for two or three months; and a quieting draught to be taken in the evening after the operation, to prevent the return of the fit, which might otherwiſe happen from the diſturbance which even the mildeſt cathartics are apt to raiſe. Method of purging.

44. I direct purging at theſe conſiderable intervals, that a relapſe may not be apprehended; The reaſons for it.

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Sect. I. which indeed might eaſily be cauſed by the too frequent agitation of the blood and juices; but when there is no further danger from this quarter, I preſcribe the following apozem:

Take of Monk's *rhubarb, two ounces; the roots of aſparagus, butcher's broom, parſley, and polypody of the oak, of each one ounce; of the inner bark of aſh, and of tamariſk, each half an ounce; the leaves of agrimony, ſpleenwort, and maiden hair, each one handful; ſena cleanſed from its ſtalks, and moiſtened with three ounces of white wine, an ounce and half; dodder of thyme, half an ounce; troches of agaric, two drams; fennel ſeeds, four ſcruples: boil them together in a ſufficient quantity of water to a pint and half; adding towards the end three ounces of the juice of* Seville *oranges: laſtly, ſtrain off the decoction, and mix therewith of the ſyrup of ſuccory with rhubarb, and of the magiſterial ſyrup for melancholy, of each one ounce and a half. Take half a pint of it every morning for three days running, and let it be repeated as there ſhall be occaſion.*

Vernal intermittents have fewer ſymptoms than autumnal ones.

45. I proceed now to enumerate the ſymptoms which accompany intermittents in their decline; and here it muſt be noted, that vernal ones have very few, compared with autumnal; becauſe they are neither ſo laſting, nor ariſe from ſuch earthy and malignant juices.

A dropſy a capital ſymptom in the latter.

46. *The principal of theſe ſymptoms,** which occaſionally happens, is a *dropſy*; wherein the legs firſt

* *The principal of theſe ſymptoms is a dropſy, &c.* This ſpecies almoſt always ariſes from the ſyſtem being debilitated, whence the abſorbents do not act ſo freely as they ought, but

firſt ſwell, and then the *abdomen*: it ariſes from a paucity of ſpirits, occaſioned by frequent fermentations of the blood, in conſequence of the length of the diſeaſe, eſpecially in the aged; ſo that being extremely impoveriſhed, it can no longer aſſimilate the juices taken in with the aliment, a crude and indigeſted quantity whereof is, at length, thrown upon the legs; and theſe being ſo diſtended as to admit no more, the remainder is diſcharged into the *abdomen*, and thus forms a *true dropſy*. But this diſorder rarely happens in young perſons, unleſs it has been imprudently occaſioned by frequent purging during the courſe of the intermittent. Chap. 5.

47. A recent *dropſy* from the above mentioned cauſe is eaſily cured by aperients and purgatives; neither am I anxious about the conſequences when it proceeds from this cauſe, for then I conceive great hopes of ſucceſs; and, in reality, have recovered ſeveral by the uſe of the apozem above ſet down, (44.) even without the mixture of any thing more appropriated to the dropſy. But I have obſerved, that it is to no *purpoſe to endeavour to cure it by purging*,* whilſt the inter- How to be treated.

but ſuffer the ſerous part of the fluids to be collected in the cellular membrane and cavity of the abdomen; hence patients become anaſarcous and aſcitical, for very rarely any other ſpecies make their appearance from intermittents. *W.*

* *To no purpoſe to endeavour to cure it by purging, &c.* This direction is very proper, for this mode would rather contribute to increaſe the cauſe. Tonics, joined with diuretics, are certainly the remedies moſt proper in theſe caſes, ſuch as will keep to invigorate the ſyſtem, particularly the digeſtive powers; hence bark, joined with ſteel, and thoſe medicines mentioned in the ſucceeding paragraph, claim the preference. But ſhould the diſeaſe continue after the intermittent has been ſubdued, we may have recourſe to ſome other

Sect. 1. intermittent lasts, which only renders that disease more obstinate without relieving the dropsy; for which reason we must wait till the intermittent is conquered, and then the cure of the dropsy may be successfully undertaken.

Infusions proper in this case.

48. But if the distemper be so urgent as not to admit of this delay, the cure must be attempted by infusions of *horse-radish root*, *the tops of wormwood*, and *the lesser centaury*, *juniper berries*, *broom ashes*, &c. in *wine*; which not only give relief by supplying the blood with fresh spirits, but likewise seasonably assist nature now upon the point of overcoming the disease.

The rickets, and the method of curing them described.

49. Children sometimes become hectic after both *continued* and *intermittent autumnal* fevers. The *abdomen*, in this case, swells and grows hard, a cough also and other consumptive symptoms frequently arise, which manifestly resemble the rickets: such patients must be treated in the following manner: According to the age of the child * give it a spoonful or two, more or less, of the purging potion above set down, every morning, for nine days, intermitting a day or two if need be; and in the mean time the purgative must be so proportioned, either by increasing or diminishing the dose, as to give but five or six motions a day. When the course of purging is over, let the *abdomen* be anointed with

of the remedies which we shall find enumerated in the cure of dropsy; observing only, that our election should rather fall on those medicaments which act as diuretics, than purgatives; for this dropsy is seldom obstinate, or attended with any danger, provided the viscera remain in a sound state: and De Gorter has very rightly observed, that in these cases the water has been frequently soon evacuated by the kidnies, without the aid of any medicine.

* See *Sect. I. Chap.* iv. *Par.* 35.

an

an opening liniment for ſome days; I generally uſe the following: Chap. 5.

Take of oil of lilies and tamariſk, each two ounces; the juice of briony roots and ſmallage, of each one ounce; boil them together till the aqueous moiſture is exhaled; then add thereto of the ointment of marſhmallows, and freſh butter, of each an ounce; of gum ammoniac, diſſolved in a proper quantity of vinegar, half an ounce; of yellow wax, enough to make the whole into a liniment. A liniment for anointing the abdomen.

By this method I have cured ſeveral children of the true rickets. But the caution, before inculcated, concerning purging, muſt alſo be obſerved here.*

50. It is worth obſerving, that when children have been long afflicted with autumnal intermittents, there is no hopes of vanquiſhing the diſeaſe till the *abdomen* (eſpecially that part of it near the ſpleen) ſwells and grows hard; the diſtemper abating in the ſame degree, as this ſymptom manifeſts itſelf. Nor can we, perhaps, more certainly foretel that the intermittent will go off in a ſhort time, than by carefully attending to the ſwelling of the *abdomen*, in children, and to that of the legs, which ſometimes happens in grown perſons. The ſwelling of the *abdomen* in children, and of the legs in grown perſons, a good ſign.

51. The ſwelling of the *abdomen* which happens in children after intermittents, in thoſe years wherein the conſtitution of the air has a tendency to produce autumnal intermittents *epidemically*, appears to the touch, as if the *viſcera* contained matter hardened to a *ſchirrus*; where- The true rickets when moſt common.

* See *Sect. I. Chap.* iv. *Par.* 35.

Sect. 1.

as that which comes in other years yields to the touch, as if the *hypocondria* were only diſtended by wind. Hence it is worth notice, *that the true rickets rarely happen*,* except in thoſe years wherein *autumnal intermittents* prevail.

Pain and inflammation of the tonſils, &c. bad ſigns.

52. A pain and inflammation of the tonſils, after continued or intermittent fevers, attended firſt with a difficulty of deglutition, ſucceeded by a hoarſeneſs, hollow eyes, and *hippocratic* face, certainly foreſhew imminent death, without any hopes of recovery. And I have generally obſerved, that profuſe evacuations in patients almoſt worn out by the violence of the diſeaſe, together with the long continuance thereof, have conſpired to produce theſe fatal ſymptoms.

53. There are ſeveral other ſymptoms, which uſually follow theſe diſeaſes, from a total neglect of purging, or an improper uſe of it; but I ſhall not mention them here, as they all require nearly the ſame method of cure, *viz.* the purging off the ſediment depoſited by the preceding effervеſcence, which, by its continuance in the body, has given riſe to theſe bad ſymptoms. It may, however, be proper here to take notice of a conſiderable ſymptom, which neither yields to purging, nor any other evacuation, and eſpecially not to bleeding, but is rendered more violent thereby. This is a peculiar kind of *madneſs*, which ſometimes follows upon inveterate inter-

A peculiar kind of madneſs, how to be treated.

* *The true rickets rarely happen, &c.* This may in ſome degree be true, and thoſe ſeaſons may contribute much towards aſſiſting in bringing on this complaint; but it ariſes from different ſources, and happens at all ſeaſons independent of this circumſtance, where the particular cauſes, of which it is the offspring, act upon the conſtitution. *W.*

mittents,

mittents, especially quartans; and yields not to the ordinary method of cure, but after copious evacuations, degenerates into a lamentable kind of folly for life. Chap. 5.

54. I have often been surprized to find no mention made of this disorder by practical writers, as I have frequently met with it; and whereas the other kinds of madness usually yield to plentiful bleeding and purging, this will bear neither; for when the patient is almost recovered, if a glyster only of milk and sugar be given, it immediately returns; and if repeated bleeding and purging be used, these evacuations may indeed abate the violence of the disease, but will certainly render the patient an ideot, and quite incurable. Nor will this seem strange, if it be considered that the other kinds of madness proceed from the too great spirituousness and richness of the blood, whereas this arises from its depressed state and vapidity, as I may term it, occasioned by the long fermentation carried on by the fever, whence the spirits become utterly unable to perform the animal functions. Mischief of repeating bleeding and purging here.

55. I treat this disorder in the following manner: I give a large dose of some strong cordial three times a day; for instance, VENICE *treacle*,* *the electuary of the* Egg, *the Countess of* KENT*'s powder*, *Sir* WALTER RALEIGH*'s powder*, or the like, dissolved in *plague* or *treacle* water, or any other cordial water. Cordials may also be given in other forms. During the course The process of the cure.

* *Venice treacle, &c.* Venice treacle is indeed a warm opiate, but I much doubt if it deserves to be entitled a cordial in this case, as the opium it contains should seem to relax and debilitate, more perhaps than the other ingredients will strengthen and raise: but it is now very judiciously thrown out of the London Pharmacopæia.

of

Sect. 1. of the cure, a ſlender but reſtorative diet, and generous liquors muſt likewiſe be uſed; and the patient ſhould keep his room, and lie much in bed. This regimen may occaſion a coſtiveneſs, whence a fever may be apprehended, eſpecially from the uſe of theſe heating medicines: but there is in reality no danger of it, becauſe the ſpirits are ſo far waſted by the preceding diſeaſe, as not to be able to raiſe a new fever. In a few weeks the diſorder will abate by degrees, and then the cordials may be omitted for a few days; but the reſtorative method of living muſt be continued, and the cordials repeated, after a ſhort interval, and perſiſted in till the perfect recovery of the patient.

Succeſsful in another ſpecies of madneſs.

56. This method has ſometimes cured a *madneſs* that did not ſucceed *intermittents*, particularly in cold and weak conſtitutions. I was called laſt year to *Saliſbury*, to conſult with my friend Dr. *Thomas* for a lady, who was greatly diſordered in her ſenſes, and ſhe was recovered by it, though ſhe was then in her pregnancy.

57. *But the common kind of madneſs*,* wherewith lively perſons are uſually ſeized, without a pre-

* *But the common kind of madneſs, &c.* The immediate cauſe of mania is now agreed to ariſe from an increaſed excitement of the brain, and appears to be corroborated by the modes of cure employed in modern practice. Dr. Swan, in his note, recommends BLEEDING *more plentifully and frequently, eſpecially in young and ſanguine perſons*, than what is here ſpecified by SYDENHAM. In recent caſes, and where there is a frequent full pulſe, or any marks of increaſed impetus of the blood in the head, it is proper and very neceſſary; but when the diſeaſe has been of long ſtanding, it is ſeldom found uſeful; and though local bleeding has been recommended, generally performing the operation in the arm in an erect poſture, nearly to a deliquium animi,

a preceding fever, is of another kind, and muſt therefore be treated in a very different manner, with reſpect to evacuation; though even in this Chap. 5.

animi, will be ſufficient. BRISK VOMITS.—Theſe ſeem doubtful, for do they not impel the blood too forcibly into the veſſels of the brain, and therefore increaſe, or do they determine the fluids to the ſurface of the body powerfully, and thereby diminiſh the tenſion and fullneſs of the veſſels, and decreaſe the excitement of the brain?

COLD BATHING.—This has been beneficial, not from the cold it communicates in general to the habit, but from the ſurprize it occaſions, and fear; for to be ſerviceable, the patient ſhould be ſuddenly immerſed, and detained a length of time therein: and great benefit may be induced by the application of cold to the naked head, either by means of ſnow, ice, or a clay cap.

CAMPHIRE—from the practice of Dr. Skinner, half a dram is to be given night and morning; and

WARM BATHING—from Hoffman, who ſays, "It is not "from reaſon alone, but from a long courſe of experience, "that we aſſert the excellence of this remedy in theſe caſes; "for we have ſeen numerous inſtances, both of inveterate "melancholy, and raving madneſs, happily cured by its "means, after the uſe of bleeding, diluting medicines, and "medicines conſiſting chiefly of nitre: and this kind of cure "I have recommended to many foreign phyſicians, who, "as well as myſelf, find it highly ſerviceable and benefi-"cial." Dr. Cullen aſſerts he has found it rather hurtful to maniacs, but in rigid melancholic habits he thinks it may be uſeful, if the lower part of the body is immerſed in warm water, and cold water poured upon the head and upper parts. Beſides theſe, there are other things conſidered as particularly uſeful—*reſtraint*, *confinement within doors*, *the removal from friends, and familiar objects*; *fear*, *impreſſed by various means*; *keeping as much as may be in an erect poſture*; *avoiding all irritation, and means of fullneſs*; *promoting frequent inteſtinal evacuations* by purgatives, particularly the cooling purges, the moſt eligible of which, from experience, has been found to be ſoluble tartar; *ſhaving*, or rather *bliſtering the head*, *opium*, *hard labour*, and *taking a journey*.——See Cullen's *Practice of Phyſic*, page 154, ſect. 1562, &c. All which tend to prevent, take off, or alleviate the too great excitement of the brain. *W.*

kind

Sect. 1. kind alſo, ſuch medicines ſhould be given as ſtrengthen the brain and animal ſpirits. I ſhall here ſubjoin the cure thereof, though it does not properly belong to this place, to prevent any perſon's being deceived by the ſimilitude of the diſeaſes.

The common kind of *madneſs* how to be treated.

58. In young perſons of a ſanguine conſtitution, let eight or nine ounces of blood be taken away from the arm; and repeat the operation twice or thrice, at the diſtance of three days; after which, bleed once in the jugular: more frequent bleeding rather renders the patient an ideot than cures him. Then give half a dram, or two ſcruples of *pil. ex duobus*, according as it operates, upon a ſet day, and repeat it only once a week, preciſely upon the ſame day of the week, till the diſorder goes off. By this method the humours, which, in this diſeaſe, uſually fly up to the head, will gradually be diverted to the lower parts.

59. On the intermediate days, during the courſe of the cure, give the following electuary, or ſome other medicines of the like kind:

A cordial electuary.

Take of the conſerve of Roman *wormwood, of roſemary, and of* Venice *treacle, each one ounce; of the conſerve of orange peel, of candied angelica and nutmeg, each half an ounce; ſyrup of cloves, enough to make the whole into an electuary; of which let the quantity of a nutmeg be taken twice a day, drinking after each doſe a ſmall draught of* canary, *wherein* cowſlip flowers *have been infuſed cold.*

60. The continued fever and intermittents above deſcribed were almoſt the only prevailing epidemic diſeaſes, during the conſtitution of the years

years 1661, 1662, 1663, and 1664. How many years they might have prevailed before I cannot say; but this I certainly know, that from 1664 to 1667 they rarely appeared at London: Chap. 5.

61. I should treat likewise of the *small pox* of that constitution, since, as I before observed, they vary considerably, according to the different constitutions wherein they appear: but as I did not sufficiently attend to them at that time, I shall only mention this peculiarity of them, *viz.* that in those years they prevailed much in the beginning of *May*, but went off, upon the coming of the *autumnal epidemics*, namely, the *continued* and *intermittent fevers*. The tops of the eruptions had small pits for the most part, about the size of the head of a small pin, and in the distinct kind the *eighth day* was attended with most danger; at which time the sweat and moisture, which had hitherto continued, went off suddenly, and the external parts became dry, neither could the sweat be raised again by any kind of cordials; a *delirium*, great restlessness, pain and sickness, a frequency of making urine in small quantities succeeded, and the patient died in a few hours very unexpectedly. Particulars concerning the small pox of this constitution.

SECTION

Sect. 2.

SECTION II. CHAP. I.

The epidemic Conſtitution of the Years 1665 *and* 1666, *at* London.

The diſeaſes of this conſtitution enumerated.

1. THE preceding winter having been extremely cold, and accompanied with a continued froſt till ſpring, which went off ſuddenly towards the end of *March*, that is, in the beginning of the year 1665, according to the *Engliſh* computation of time, there then aroſe *peripneumonies*, *pleuriſies*, *quinſies*, and other inflammatory diſorders, which quickly made great devaſtation; and with theſe there alſo appeared a continued *epidemic fever*, of a very different kind from thoſe of the foregoing conſtitution, which uſually ſeized ſcarce any body at that time of the year. For (1.) the pain in the head here was more violent; (2.) the vomitings more copious; (3.) and the looſeneſs, which was generally prevented in the former fevers by a vomit, was increaſed thereby in the preſent fever, and yet the vomiting continued; (4.) the external parts were dry, as in the fevers of the preceding conſtitution; but after bleeding, eſpecially, a ſweat was eaſily procured, and being encouraged ſoon abated the ſymptoms; and this might be done at any time of the diſeaſe, whereas in thoſe fevers it could not be ſafely attempted till the thirteenth or fourteenth day, and was not eaſily raiſed then; (5.) the blood taken away in this fever often reſembled that of perſons in pleuritic and rheumatic diſorders, but was leſs ſizy.

2. Theſe

2. Theſe were the diagnoſtic ſigns of this diſeaſe at its riſe; but towards the middle of the year the *plague* appeared, accompanied with ſeveral of its peculiar ſymptoms, as *carbuncles*, *buboes*, &c. and ſpreading more and more every day, came to its height about the *autumnal equinox*, at which time it deſtroyed near eight thouſand perſons in one week, though at leaſt two thirds of the inhabitants had retired into the country to avoid the infection. Afterwards it began to abate, and was ſo far conquered by the winter's cold, as to ſeize very few during that ſeaſon, and the following ſpring, when it went off entirely; whereas the fever prevailed, (though not ſo epidemically) all the ſubſequent year, and continued to the ſpring of the year 1667. I proceed now to treat of this *fever* and the *plague*.

Chap. 2.

The *plague* and its progreſs deſcribed.

CHAP. II.

Of the peſtilential Fever and Plague of 1665 *and* 1666.

1. I HAVE already curſorily obſerved, that ſome fevers are uſually ranked *among ſt thoſe of the malignant kind*,* whereas the great violence of

Some fevers falſely eſteemed malignant.

* *Among ſt thoſe of the malignant kind, &c.* Though the term malignant, as applied to fevers, is not in general uſed at this day, yet the ancients had a ſpecies of fevers which went under this denomination; and they defined the word malignity to be the offspring of the worſt kind of latent cacochymia, and conſiſted in a peculiar corruption and diſſolution of the humours and ſpirituous liquids, or putrefaction conjoined with too great proſtration of vital and animal ſtrength;

Sect. 2. of their ſymptoms, which ſeems to countenance this opinion, does not proceed from the contagious nature of the diſeaſe, but from unſkilful treatment: for when we do not cloſely enough attend to the ſolution thereof appointed by nature, but inconſiderately purſue a different method, we greatly diſorder the animal œconomy; whence the diſeaſe, contrary to its nature, now different from what it uſed to be, is accompanied with ſeveral irregular ſymptoms. But a true *malignant* fever rarely happens, and totally differs from other kinds of fevers, that are ſo called from the irregularity of the ſymptoms, being indeed of the ſame ſpecies with the plague, only not ſo violent; for which reaſon I will treat of the cauſe and cure of both in the ſame chapter.

A true malignant fever rare.

The air produces diſeaſes by a ſecret diſpoſition,

2. That the air obtains a ſecret diſpoſition or temperature, productive of different diſeaſes at different times, is apparent to ſuch as conſider that the very ſame diſeaſe, in one ſeaſon, proves epidemic, and deſtroys great numbers, and in another ſeizes but few perſons, without proceeding further; as is manifeſt in the *ſmall pox*, and more particularly in the *plague*, our preſent ſubject.

not eaſily diſcoverable.

3. *But of what nature the conſtitution of the air is,** which gives riſe to theſe diſeaſes, I am as

ſtrength; or that corruption might come from contagion, or ſome internal cauſe. From whence Sydenham has evidently taken his idea, in his application of the term in this place. And Dr. Huxham thought it not inapplicable in his time to putrid and peſtilential fevers, as he conſiders them ſynonimous, in order to diſtinguiſh them from thoſe of the inflammatory kind. *W.*

* *But of what nature the conſtitution, &c.* There are many phænomena that exceed our narrow comprehenſion, which

as ignorant, as of ſeveral other things, about which philoſophers cannot agree; whatever it be, ought at leaſt to thank God that he permits peſtilential conſtitutions of the air, productive of that great deſtroyer the *plague*, to happen much more rarely than ſuch as produce leſs fatal diſtempers: for the *plague ſeldom rages violently in England*,* above once in thirty or forty years. A few perſons in different places die of this diſeaſe for ſome years after a great *plague*, and it uſually goes off by degrees; becauſe the peſtilential conſtitution of the air continues ſtill in part, and is not yet entirely changed to a more healthful ſtate; this therefore ſhould be eſteemed only as the gleanings of a preceding harveſt. To the ſame cauſe it is owing, that the fevers which prevail for a year or two after a ſevere plague, are generally peſtilential; and though ſome have not the genuine ſigns of the plague, yet they are much of the ſame nature, and require the like treatment, as ſhall hereafter be ſhewn. Chap. 2.

4. But beſides the conſtitution of the air, as a more general cauſe, there muſt be another previous circumſtance to produce the plague, *viz.* the receiving the *effluvia*, or *ſeminium*, from Cauſes of the plague.

which are not therefore to be contemned; but where the nature of the cauſe cannot be known from reaſoning, the effect ſhould always be carefully noted, in order from thence to form ſafe rules for practice.

* *The plague ſeldom rages violently in England, &c.* This error has not only been adopted by SYDENHAM, but many other authors of great eminence; on what their opinions were founded cannot be conjectured—however, from happy experience we are made certain of the contrary, for three times the period here ſpecified has elapſed without ſo melancholy and lamentable a viſitation. *W.*

Sect. 2. an infected perſon, either immediately by contact, or mediately by peſtilential matter conveyed from ſome other place. And when this happens in ſuch a conſtitution as we have mentioned above, the whole air of that tract of land is quickly infected with the plague, by means of the breath of the diſeaſed, and the ſteam or vapour ariſing from the dead bodies, ſo as to render the way of propagating this dreadful diſeaſe by infection entirely unneceſſary: for though a perſon be moſt cautiouſly removed from the infected, yet the air received in by breathing will of itſelf be ſufficient to infect him, provided his juices be diſpoſed to receive the infection.

Time of its riſe, and its progreſs.

5. Though this diſtemper, when it is only *ſporadic*, ſeizes ſome few perſons without any regard to the ſeaſon, the infection being, as it were, communicated from one to another; yet, when an epidemic conſtitution of the air likewiſe prevails, it ariſes in the intermediate ſeaſon between ſpring and ſummer; this ſeaſon being the fitteſt to produce a diſeaſe, the eſſence of which chiefly conſiſts in an inflammatory ſtate of the juices, as we ſhall afterwards ſhew.—Again, this diſeaſe has its times of increaſe and declenſion, like other kinds of natural things: it begins at the time above ſet down, as the year advances it ſpreads, and as that declines it abates, till, at length, winter introduces a ſtate of the air contrary to it.

If not influenced by the

6. For if the *changes of the ſeaſon* * were to have

* *For if the changes of the ſeaſon, &c.* Do not the changes of the ſeaſon produce great alterations in the air? And may it not be from that cauſe that the ſubduction of the

have no effect on this diſeaſe, the true peſtilential *feminium*, unconquerable by any alteration of the air, would be conveyed from one perſon to another in a continued ſucceſſion; ſo that when once it had got into a populous city, it would rage more and more, and never ceaſe till it had deſtroyed all the inhabitants: but that the contrary frequently happens, appears from the number of the dead, which roſe to ſome thouſands in one week in *Auguſt*, but decreaſed very much, and was inconſiderable towards the end of *November*. I muſt own, however, what ſome authors have likewiſe aſſerted, that the *plague* appears at other ſeaſons of the year; but this ſeldom happens, and it is not then very violent.

Chap. 2. changes of the ſeaſon, would prove exceedingly deſtructive.

7. Mean time I much doubt if the diſpoſition of the air, though it be peſtilential, is of itſelf able to produce the *plague*; but the plague, being always in ſome place or other, it is conveyed by peſtilential particles, or the coming of an infected perſon from ſome place where it rages into an uninfected one, and is not epidemic there, unleſs the conſtitution of the air favours it. Otherwiſe I cannot conceive how it ſhould happen that *when the plague rages violently in one town* * in the ſame climate, a neighbouring one ſhould

A peſtilential air unable of itſelf to breed the plague.

the plague might be owing, as cold is capable of correcting and ſuppreſſing that acrimony which is diffuſed and ſupported by heat? Dr. Mead ſeems to be of this opinion, and accounts for the decreaſe of the plague in November, by ſuppoſing an emendation of the qualities of the air, and reſtoring it to a healthful ſtate—circumſtances capable of diſſipating and ſuppreſſing the malignity.——Mead *on the Plague*, pag. 66. *W.*

* *When the plague rages violently in one town, &c.* It does not appear that the *air*, however corrupted, is uſu-

Sect. 2. ſhould totally eſcape it, by ſtrictly forbidding all intercourſe with the infected place: an inſtance of which we had ſome few years ago, when the plague raged with extreme violence in moſt parts of *Italy*, and yet the Grand Duke by his vigilance and prudence entirely prevented its penetrating the borders of *Tuſcany*.

The ſymptoms of the plague.

8. The plague uſually begins with chilneſs and ſhivering like the fit of an intermittent; ſoon after, a violent vomiting, a painful oppreſſion at the breaſt, and a burning fever, accompanied with its common ſymptoms ſucceed, and continue till the diſeaſe proves mortal, or the kindly eruption of a *bubo*, or *parotis*, diſcharges the morbific matter, and cures the patient. Sometimes the diſeaſe, though rarely, is not preceded by any perceptible fever, and proves ſuddenly mortal; the purple ſpots, which denote immediate death, coming out, even whilſt the perſons are abroad about their buſineſs. But it is worth obſerving, that this hardly ever happens but in the beginning of a very fatal *plague*, and never in its decline, or in thoſe years wherein it is not *epidemic*. Again, ſometimes ſwellings appear, without having been preceded either by a fever, or any other conſiderable ſymptom; but I conceive that ſome ſlight and obſcure ſhivering always precedes the ſeizure: Now, ſuch as are attacked in this favouable

uſually capable of carrying infection to a very great diſtance; but that commonly the *plague* is ſpread from town to town by infected perſons and goods: for there are numberleſs inſtances, where the *plague* has cauſed a great mortality in ſome towns, while other towns and villages, near them, have been entirely free. See Dr. Mead *on the Plague*, pag. 66.

manner

manner may safely follow their business, as if they were in health, and need not observe any particular way of living. Chap. 2.

9. *As to the essence of this disease*,* I do not undertake to define it with exactness; and whoever should The essence of this and other diseases inexplicable.

* *As to the essence of this disease*, &c. Of this little can be said, as the particles or miasmata of which, on being received into the human machine constitutes the disease, are not objects of our senses, and hence their nature is to us undiscoverable. Hoffman says, "the plague or pestilen-"tial fever, is the most acute of all the species of the acute "fevers, proceeding from a contagious or poisonous semi-"nium, or miasm, usually brought from the eastern parts, "and proving mortal, unless the poison be soon expelled by "buboes or carbuncles by the vigour of the vital motions or "powers." But the only way we have of acquiring any knowledge relative to this subject, is from adverting to the effects produced, which Dr. Cullen has collected from various authors who have written the latest upon the subject, and given their observations from practice. From these he selects the distinguishing circumstances, and draws judicious inferences.

In this disease, and particularly in the most violent, and most dangerous states, are observable,

1st. The great loss of strength in the animal functions, which often appears early. 2dly. The stupor, giddiness, and consequent staggering, which resemble drunkenness, or the head ach, and various delirium; *all symptoms denoting a great disorder in the functions of the brain.* 3dly. The anxiety, palpitation, syncope, and especially the weakness and irregularity of the pulse, *which denote considerable disturbance in the action of the heart.* 4thly. The nausea and vomiting, particularly of bile, *which shews an accumulation of vitiated bile in the gall bladder and biliary ducts*, and from thence derived to the intestines, and stomach; *symptoms supposed to denote a considerable spasm and loss of tone in the extreme vessels on the surface of the body.* 5thly. The buboes and carbuncles, *which denote an acrimony prevailing in the fluids.* And lastly, the petechiæ, hæmorrhagies, and colliquative diarrhœa; *which denote a putrescent tendency, prevailing to a great degree in the mass of blood.*

From all which he concludes, the plague to be a specific

Sect. 2. ſhould call upon me to ſhew what it is that conſtitutes any particular ſpecies of a diſeaſe, might perhaps ſeem as impertinent, to the thinking part of mankind, as I ſhould appear, were I to aſk him the ſame queſtion about a horſe, for inſtance, amongſt animals, or botany, amongſt plants. For nature produces whatever ſhe cauſes to exiſt by fixed laws, and a method of operating known only to herſelf, and conceals the eſſence and conſtitutive differences of her productions in the greateſt obſcurity. Hence every ſpecies of diſeaſes, as well as of animals and vegetables, is endowed with certain peculiar and univocal properties, reſulting from its eſſence. However, an inquiry into the manner

contagion often ſuddenly producing the moſt conſiderable ſymptoms of debility in the nervous ſyſtem and moving powers, as well as general putreſcency in the fluids, and ſets down their united circumſtances as the proximate cauſe from whence he deduces his mode of cure. He arranges it amongſt his order of exanthemata, and defines it a highly contagious typhus, or nervous fever attended with extreme debility, bubos or anthraces breaking out, not on any particular day of the diſeaſe, varying in its degree of violence, but its ſpecies dubious.

Dr. Swan has pointed out in what it differs from other contagious and eruptive fevers. 1ſt. It is the moſt acute of them all, and ſometimes proves mortal the firſt or ſecond day. (2.) In our climate it is neither *epidemic* nor *ſporadic*, but only cauſed by contagion brought from infected places. (3.) It does not go off, like other putrid and malignant fevers, by a copious ſweat, a looſeneſs, *&c.* but is terminated *critically* by humours that come to ſuppuration. (4.) The peſtilential *ſeminium* readily adheres to ſpungy and porous matters, and is conveyable thus to a great diſtance, without any loſs of its pernicious quality. And (5.) the plague has this farther remarkable particularity, that its progreſs is checked by cold; whence it ſeldom, if at all, prevails in a cold ſeaſon, and in cold countries, but, on the contrary, rages violently and frequently in a hot ſeaſon, and in warm climates.

of

of curing diſeaſes, may proceed very ſucceſsfully, though we are ignorant of their cauſes, becauſe the cure of moſt diſeaſes is not effected by this kind of knowledge, but by a ſuitable and experienced method. Chap. 2.

10. But to return to our ſubject: As the riſe of all ſimilar diſeaſes is uſually deduced by us, in our preſent ignorance of things, from ſome depravation of the firſt or ſecond qualities, it is probable that the plague is a peculiar fever of its own kind, ariſing from an inflammation of the more ſpirituous particles of the blood, which, by reaſon of their fineneſs and ſubtlety, ſeem moſt likely to receive it. When it is poſſeſſed of the higheſt degree of ſubtlety, it ſuddenly diſſipates the natural heat, and deſtroys the patient, as is manifeſt in the beginning and height of an epidemic conſtitution. The bodies of ſuch as periſh thus ſuddenly by the violence of this diſeaſe, are totally covered with purple ſpots, the fibres of the blood being broken, and its texture wholly diſſolved, by the violence of the inteſtine ſtruggle. The cauſe of the plague. Whence it occaſions ſudden death.

11. Now this fatal cataſtrophe may be occaſioned by the exceeding ſubtlety of the contagious matter, even without a febrile ebullition, or any other perceptible ſymptom; quite otherwiſe than when the morbific cauſe is not ſo ſubtle, and the inſtrument that endangers life more obtuſe, which is often the caſe. To ſhew the difference by a familiar example: * *Let a needle*, or any other ſharp-

* *Let a needle, or any other ſharp-pointed inſtrument, &c.* The ſimile here uſed is very inadequate, and not at all illuſtrative of the author's reaſoning; and many ſuch occur in his writings. It muſt be acknowledged, this method of illuſ-

Sect. 2. ſharp-pointed inſtrument, be forcibly thruſt under a pillow, and inſtead of raiſing it up, as an obtuſe inſtrument would do, it will go through it.

And when chiefly. 12. But ſudden death rarely happens, and only, as before intimated, towards the beginning, or increaſe of the *plague*. For this diſeaſe generally begins, like other fevers, with chilneſs and ſhivering, which are ſoon ſucceeded by heat, and this continues *till the inflamed parts of the blood are expelled* * by nature to the emunctories, and there ſuppurated in the manner of common *phlegmons*. But if the inflammation be leſs conſiderable, it uſually generates ſuch fevers as are commonly called *peſtilential*, as it frequently happens at the end of a *peſtilential conſtitution*, and perhaps even a year or two afterwards, till that ſpecies of fevers becomes extinct.

The *eryſipelas* nearly reſembles the plague. 13. In my opinion, the inflammation which the *Latins* call *ignis ſacer*, and we *St. Anthony's fire*,

illuſtration, when rightly applied, lets in great light to the argument; but if otherwiſe, nothing is more fallacious and inconcluſive. Falſe ſimilies, and erroneous analogies, always render matters more obſcure, and create great confuſion and perplexity in the mind. With reſpect to ſimilies in particular, let it be remembered that, to be perfectly concluſive, the ſimilitude, ſhould only be carried on between ſuch things as fall under the ſame *genus*; as between animals and animals, plants and plants, minerals and minerals, and ſo of the reſt.

* *Till the inflamed parts of the blood, &c.* SYDENHAM has conſidered this as an inflammatory fever; but from every account of the plague it by no means quadrates with the idea we have of fevers from that ſource. If we examine the ſymptoms, or the moſt ſucceſsful mode of cure, it ſeems to be of a nature almoſt diametrically oppoſite to thoſe attended by or productive of inflammatory diatheſis, on which ſubject we ſhall ſpeak more at large, when we come to animadvert on what our author ſays reſpecting bleeding in this diſeaſe. *W.*

or

or an *eryſipelas*, is a good deal like the plague. For ſkilful phyſicians eſteem it a continued fever, ariſing from the corruption and inflammation of the thinner parts of the blood, which nature, to get clear of, throws out upon ſome external part of the body, where a tumour, or rather (for frequently there is no very remarkable tumour) a large red ſpreading ſpot, uſually called a *roſe*, ariſes; but the fever is *critically* terminated in a day or two by this tumour, or eruption, and is ſometimes accompanied with a pain in the glands of the arm-pit, or groin, as in the *plague*. Chap. 2.

14. Moreover, the *eryſipelas* begins much in the ſame manner as the plague, *viz.* with a ſhivering, followed by a feveriſh heat; ſo that ſuch as have never had this diſeaſe before judge it to be the plague, till it manifeſts itſelf at length in the leg, or ſome other part. To this may be added, that ſome authors ſuſpect there is a kind of malignity joined with this diſeaſe, and accordingly place the cure of it in the uſe of ſudorifics and alexipharmics. But the inflammation here, as ſoon as it has raiſed an ebullition, by means whereof the lightly parched particles of the blood are in a ſhort time expelled, goes off ſpontaneouſly, and does no farther miſchief Proofs thereof.

15. But the plague is much more violent than an *eryſipelas*; being, by its exceeding ſubtlety, fitted to paſs through the innermoſt receſſes of the body like lightning, and ſuddenly deſtroys the ſpirits, and ſometimes diſſolving the texture of the blood, before nature, oppreſſed by ſpeedy progreſs of the diſeaſe, is able to raiſe a *feveriſh ebullition*, which is the common inſtrument ſhe uſes to expel whatever vitiates the blood. The *plague* more violent than an *eryſipelas*.

Sect. 2.

Cauſed by inflammation.

16. If my opinion, of this diſtemper's ariſing from inflammation, be controverted, let it be conſidered that the preſence of a fever, and alſo ſeveral other particulars, confirm it; as for inſtance (1.) the colour of the blood taken away here, which plainly reſembles that taken away in pleuritic and rheumatic diſorders; (2.) the dark livid colour of the *carbuncles*, not unlike the mark left by an actual cautery; (3.) the *buboes*, which are equally diſpoſed to inflammation, as other tumours of any kind, and terminate in abſceſſes, as moſt inflammations uſually do; (4.) the ſeaſon of the year in which an *epidemic plague* commonly ariſes, ſeems likewiſe to ſtrengthen my opinion; for at the ſame time, namely, betwixt *Spring* and *Summer*, pleuriſies, quinſies, and other inflammatory diſeaſes uſually become *epidemic*; and I never knew them more common than they were for ſome weeks preceding the beginning of the late *plague* at *London*. Neither is it at all material, that the very ſame year that proved fatal to ſo many thouſands, was otherwiſe very mild and healthy, and that ſuch as eſcaped the plague never enjoyed better health; and likewiſe that thoſe who recovered were not ſubject to a cachexy, and other indiſpoſitions, uſually ariſing from the foul remains left by preceding diſtempers; and farther, that *impoſthumes* and *carbuncles*, though of the largeſt ſize, after the inflamed particles, together with the *ſanies*, was diſcharged, were eaſily cured by the common chirurgical methods.

Alexipharmics only do ſervice as ſudorifics.

17. But here perhaps it may be aſked, how it happens, if the *plague* be an inflammatory diſeaſe, that heating medicines, as moſt alexipharmics are, ſhould be ſo ſucceſsfully uſed, both

for prevention and cure. To this I reply, that Chap. 2.
theſe medicines only relieve by accident, namely by means of the ſweat which they procure; whereby the inflamed particles of the blood are exhaled, and expelled; but if they fail of raiſing a ſweat, as it frequently happens, the blood being more inflamed by this additional heat, ſoon manifeſts the bad effects of ſuch kind of remedies. As to prevention, I am well aware how much the uſe of warm antidotes is generally commended, but with what advantage has not yet appeared. Too free an uſe of wine, and the taking of other ſtrong preſervatives every day, at ſet hours, have occaſioned this diſeaſe in numbers of perſons, who otherwiſe might probably have eſcaped it.

18. As to the cure of theſe fevers, ſome perhaps will charge me with preſumption and imprudence for undertaking to treat thereof, as having lived at ſome diſtance from the town, during the greateſt part of the time that the late plague prevailed, and conſequently being not ſufficiently furniſhed with obſervations relating thereto. But ſince ſome phyſicians of greater abilities, who courageouſly ſtaid in town at the peril of their lives, whilſt the *plague* raged, have hitherto declined publiſhing what they have learnt of its nature from a large practice, it is hoped every good man will excuſe me for communicating my ſentiments of it, founded on a few of my own obſervations.

19. And firſt the indications of cure are to be Manner of treating the plague.
conſidered; which muſt always be directed either (1.) *to aſſiſt nature in expelling the diſeaſe, by keeping cloſely to her method of procedure herein*; or (2.) *diſtruſting the method ſhe uſually takes to overcome*

Sect. 2. *come the inteſtine enemy, to ſubſtitute a different and ſafer one from art.* But here perhaps ſome may object that the *plague* may alſo be ſucceſsfully enough treated by *anti-peſtilential* alexipharmics, with forms of which the works of practical writers abound. But whether the aſſiſtance theſe kinds of medicines afford ſhould not rather be aſcribed to their apparent virtue of raiſing copious ſweats, whereby they at the ſame time open a paſſage for the morbific matter to eſcape, than to any occult quality given them by nature to expel the peſtilential poiſon, admits of great diſpute.

Dubious how alexipharmics relieve.

20. Neither is there reaſon to doubt of theſe alone, but likewiſe whether the alexipharmics of other diſeaſes do not relieve by promoting ſome kind of evacuation, rather than by any inherent ſpecific virtue. For inſtance, whoever (with reſpect to the venereal diſeaſe) aſſerts that *mercury* and *ſarſaparilla* are true alexipharmics for the *virus* thereof, ſhould produce ſome examples, where the former has ſometimes effected a cure without raiſing a ſalivation or purging, and the latter without occaſioning ſweat; which I conceive it will be difficult to find. But to me it ſeems probable that the peculiar remedy of the *plague*, and proper alexipharmic of its poiſon, lies yet concealed in the boſom of nature, and that this diſtemper can only be removed by mechanical methods.

First intention of cure more fully conſidered.

21. To conſider therefore the firſt intention above mentioned more at large, which tends *to aſſiſt nature in expelling the morbific matter, agreeably to her own method of procedure*; it muſt be obſerved that in the true *plague*, when nature of herſelf commits no error, nor is forced out of the way by violent meaſures, ſhe finiſhes the cure by

by an abſceſs in the emunctories, whence the matter is diſcharged; but in a *peſtilential fever* the cure is performed by an univerſal perſpiration, through the whole ſurface of the body. Hence we may learn that the method of cure muſt be diverſified, agreeable to the different procedure which nature points out in both diſeaſes. For if one was to endeavour to diſcharge the matter of the true plague by ſweat, it would be oppoſing nature, becauſe ſhe attempts to do it by impoſthumes: and, on the other hand, to endeavour to expel the matter of a peſtilential fever otherwiſe than by ſweat, is to purſue a method directly contrary to the procedure and diſpoſition of nature. Chap. 2.

22. We are yet unacquainted with a ſet of certain remedies, capable of promoting the natural expulſion of the morbific matter in the true *plague*, or, in other words, of forwarding the eruption of the impoſthumes, unleſs it be ſuppoſed that a ſtrengthening diet and cordials may promote this end: but, in reality, I ſhould greatly apprehend that the inflammation, already too violent, might be farther increaſed thereby. And indeed experience has convinced me that ſweats are ineffectual in this caſe: for though I muſt own that when a profuſe ſweat has been kept up for three or four hours, and afterwards ſuddenly ſtopped, a tumour appears, yet I conceive it is not at all owing to the ſweat, becauſe there are no ſigns of a ſwelling whilſt the ſweat flows moſt plentifully, and when this is gone off, the ſwelling may ariſe, as it were, by accident, *viz.* in conſequence of nature's being eaſed of a part of her load, whereby ſhe was too much oppreſſed, by means of the ſweat, and

Sweating ſometimes prejudicial in the plague.

Sect. 2. and of the considerable heating of the body by cordials given to raise the sweat. But the uncertainty and danger of driving out the morbific matter by impostbumes caused by sweat, sufficiently appears from its having proved fatal to near a third part (to speak within compass) of such as underwent the treatment. Whereas, on the contrary, several persons, in whom the tumours appeared in the regular and natural way, even whilst they were about their business, and without the least apparent disorder of any natural, vital, or animal function, recovered in a short time; unless such as happened unfortunately to fall into the hands of some unskilful practitioner, and by his advice, though in perfect health, endeavoured to sweat in bed; from which time they began to grow worse, and at length, the disease increasing, afforded a melancholy proof of the perniciousness of the advice, by their death.

Not certainly terminated by tumours.

23. Moreover, that the termination, or *critical* solution of the *plague* by tumours or impostbumation is both uncertain and dangerous, is manifest from a *bubo*, which sometimes rises kindly at first, and with an abatement of the symptoms, but afterwards suddenly disappears, and instead thereof purple spots succeed, which are certain signs of death; and the cause of its striking in should justly seem to be ascribed to the copious sweats, intended to promote its eruption, which wasted a considerable part of the matter through the pores, that should have served to fill and keep it up.

No certain method of curing it.

24. However it be, this at least evidently appears, that Providence has graciously pointed out a certain method of expelling the morbific cause

in

in other diſeaſes; but, for this ſcourge of our tranſgreſſions, has given us only a very uncertain one: and perhaps the cauſe of the great deſtructiveneſs of this diſeaſe may be as well aſcribed to this ſource, as to its malignity; for in the *gout* and other diſeaſes, where there is little ſuſpicion of malignity, the ſtriking in of the morbific matter proves as certainly pernicious. Hence it clearly follows, that the phyſician, who in the cure of other diſeaſes ought to tread cloſely in nature's ſteps, muſt here renounce her guidance; and for want of ſtrictly attending to the truth of this maxim, the *plague* has proved much more deſtructive, than it would otherwiſe have been. Chap. 2.

25. Since then it appears quite unſafe to follow nature in her method of curing this diſeaſe, we are in the next place to conſider in what manner the ſecond intention is to be anſwered, which conſiſts *in attempting the cure by a different one:* and this I conceive is only to be effected *by bleeding or ſweating.** As to the former, I am well aware that it is generally condemned in this diſeaſe; but ſetting aſide vulgar prejudices, I ſhall Nature not to be followed here. Bleeding or ſweating moſt likely to relieve.

* *By bleeding or ſweating, &c.* I cannot avoid thinking that SYDENHAM, when ſpeaking ſo greatly in favour of bleeding, has been directed more by his favourite theory than practical obſervation. For he concluded all fevers to be inflammatory, produced by the commotion, ebullition, or fermentation of the blood; and influenced by that idea he ſeems labouring to ſupport a practice conſiſtent with that doctrine; for, he ſays, in a paragraph below, 30—"Though "I greatly approve this method (bleeding), for ſeveral "reaſons I prefer ſweating, becauſe it does not weaken the "patient ſo much as bleeding."—And certainly the ſudden and great proſtration of ſtrength, with the rapid progreſs made in the putrefaction and diſſolution of the fluids ſhould prohibit

Sect. 2. I ſhall here briefly and equitably examine the reaſons uſually brought againſt it.

26. And,

prohibit its uſe, except under ſome ſingular circumſtances inherent in the conſtitution; for nothing contributes ſo powerfully to weaken the ſyſtem, and deſtroy the healthful craſis of the blood, as bleeding. If it is ever allowable, it can only be where the diſeaſe attacks thoſe who are athletic, of ſtrong ſtamina, plethoric habits, whoſe blood is firm and denſe, who are uſed to high living, or have been accuſtomed to this operation, in order to alleviate ſome diſtreſſing ſymptoms, which might themſelves prove deſtructive, and ſhould be performed in the very early ſtage of the diſeaſe, before the appearance of buboes, &c.

The application of the lancet can never be adviſable indiſcriminately in a diſeaſe, where debility and putreſcency are the ſtriking characteriſtics, as its effects muſt abſolutely contribute to increaſe the powers of theſe miſchiefs; ſimilar to what has often been obſerved from this raſh practice in the beginning of putrid fevers, or what are called malignant ulcerous ſore throats; where ignorant pretenders to the medical art, have by theſe means ſo aggravated the diſeaſe, that it has bid defiance to all the efforts afterwards of the moſt ſkilful practitioners.

Indeed bleeding, though a remedy ſo apparently ſimple, in fevers calls for nice diſcernment, in order to diſtinguiſh where it may be uſeful, where detrimental; under the direction of mature judgement, admirable are its effects; in the hands of the uninformed, in many caſes how fatal! And though in practice I know not of any remedy ſo noble, or that may be uſed with ſuch certain ſucceſs, when neceſſary; ſtill am I not acquainted with any that requires in its application greater ſagacity.

With regard to ſweating, the following rules ſhould be obſerved, That it ſhould be excited without the uſe of ſtimulant inflammatory medicines, with as little external heat, or increaſe of heat of the body, as poſſible, and be continued for twenty-four or forty-eight hours, never leſs than twelve; that as long as the perſon can bear it, it ſhould be carried on without admitting of ſleep, and rendered univerſal over the whole body; that it ſhould not be ſuddenly checked by cold. — See Cullen's *Practice of Phyſic*, vol. i. pag. 216, ſect. 138.

Plentiful uſe of diluents are recommended, made more grateful

26. And, first, I appeal to the physicians who continued in town during the late plague, whether free and repeated bleeding, before a swelling appeared, was ever observed to prove fatal to any of the infected? But it is not at all surprizing that bleeding in a small quantity, or after the appearance of a swelling, should always be prejudicial: for in the former case, the management of the cure is taken out of the hands of nature, who used all her endeavours to raise a tumour without substituting in its stead any other sufficiently effectual method to expel the morbific matter; and, in the latter, bleeding, by attracting from the circumference to the center, occasions a directly opposite motion to that of nature, which is made from the center to the circumference. And yet nothing is more frequently urged as a capital argument, by those who condemn bleeding in general in this disease, than the mischief of bleeding in this improper manner; as may be collected from *Diemerbroeck*, and other writers of observations. But for my own part I cannot assent to their reasonings, till I know what answer they will make to the question above proposed. Chap. 2. Bleeding examined, and how to be used.

27. It is certain that several writers of great character have judged bleeding proper in the Commended by many eminent writers.

grateful by vegetable acids, or more powerful by being impregnated with some portion of neutral salts; and in order to support the patient under the continuance of the sweat, a little weak broth acidulated with lemon juice may be frequently given; and sometimes a little wine, if the heat of the body be not considerable. Opiates are also the most efficacious and safe; but they should not be combined with aromatics; and probably would be rendered more effectual if joined with a portion of emetics, and neutral salts.—Ibidem, vol. ii. pag. 219. sect. 691, 692, 693. *W.*

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plague; the principal of which are *Ludovicus Morcatus*, *Joannes Coſtæus*, *Nicolaus Maſſa*, *Ludovicus Septalius*, *Trincavellius*, *Foreſtus*, *Mercurialis*, *Altomarus*, *Paſchalius*, *Andernachus*, *Pereda*, *Zacutus*, *Luſitanus*, *Fonſeca*, &c. But *Leonardus Bottallus*, a celebrated phyſician of the laſt century, is the only one I know of who places the whole of the cure in as copious bleeding as we demand. I ſhall tranſcribe his words, that I may not be judged ſingular in this practice.

By *Bottallus* in a high degree.

28. "In ſhort (ſays our author) I conceive "there is no plague wherein bleeding may not "prove more beneficial than all other reme- "dies, provided it be ſeaſonably uſed in due "quantity; but I am of opinion it ſometimes "does no ſervice, either, becauſe perſons have "recourſe to it too late, or uſe it too ſparingly, "or commit ſome error in both theſe particu- "lars." And a little farther he ſubjoins, "But "if our fears be ſo great, and we take away ſo "ſmall a quantity of blood, how is it poſſible "to judge exactly what good or miſchief bleed- "ing may do in the plague? For if a diſeaſe "(which requires four pounds of blood to be "taken away, in order to its cure, and yet "but one is taken away) deſtroys the patient, "it does not therefore prove deſtructive be- "cauſe bleeding was uſed, but becauſe it was "performed in an improper, and, perhaps, in "an unſeaſonable manner: but ill-deſigning "and indolent men always endeavour to lay "the fault on that, not becauſe it did really do "miſchief, but becauſe they vilely deſire to "give every body an ill opinion of it. Or, "ſuppoſing they do not do it out of wicked- "neſs, they cannot be excuſed from ignorance

"and

" and perverſeneſs, both which are doubtleſs Chap. 2.
" pernicious, but the former much more ſo."
Then proceeding to confirm his reaſonings from experience, he goes on thus: " Theſe particu-
" lars being attended to, no ſenſible perſon
" can juſtly cenſure bleeding in theſe diſeaſes,
" but muſt rather highly eſteem and commend
" it as a divine remedy, and practiſe it with aſ-
" ſurance; which indeed I have done for theſe
" fifteen years paſt. For I found no ſpeedier
" and ſafer remedy in peſtilential diſeaſes, than
" copious and ſeaſonable bleedings in all my pa-
" tients, which were exceeding numerous, both
" at the ſiege of *Rochel*, and four years ago at
" *Mons*, in *Hainault*, at *Paris* for theſe two years
" paſt, and laſt year at *Cambray*." To theſe remarks the author adds ſome inſtances of perſons cured by this method, which I here omit for brevity ſake; but muſt beg leave to relate a very uncommon caſe, no way foreign to our preſent ſubject, which happened a few years ſince in *England*.

29. Amongſt the other calamities of the civil war that ſeverely afflicted this nation, the plague alſo raged in ſeveral places, and was brought by accident from another place to *Dunſtar* caſtle in *Somerſetſhire*, where ſome of the ſoldiers dying ſuddenly with an eruption of ſpots, it likewiſe ſeized ſeveral others. It happened at that time that a ſurgeon, who had travelled much in foreign parts, was in the ſervice there, and applied to the governor for leave to aſſiſt his fellow ſoldiers who were afflicted with this dreadful diſeaſe in the beſt manner he was able; which being granted, he took away ſo large a quantity of blood from every

History of cures from bleeding plentifully.

Sect. 2. one at the beginning of the diſeaſe, and before any ſwelling was perceived, that they were ready to faint and drop down; for he bled them all ſtanding, and in the open air, and had no veſſels to meaſure the blood, which falling on the ground, the quantity each perſon loſt could not of courſe be known. The operation being over, he ordered them to lie in their tents; and though he gave no kind of remedy after bleeding, yet, of the numbers that were thus treated not a ſingle perſon died; which is ſurpriſing. I had this relation from Colonel *Francis Windham*, a gentleman of great honour and veracity, and at that time governor of the caſtle.—I ſhall ſet down what I have met with worth notice, with reſpect to this ſubject, when I come to deliver the few obſervations I was enabled to make whilſt the late *London plague* prevailed.

Sweating preferred to bleeding.

30. But though I greatly approve of this method, and have formerly experienced its uſefulneſs in many inſtances, yet, for ſeveral reaſons, I prefer the diſſipation of the peſtilential ferment by ſweat, to its evacuation by bleeding; becauſe ſweating does not weaken the patient ſo much, nor hazard the reputation of the phyſician. But this, however, has its inconveniences too; for, (1.) in many, and eſpecially in young perſons of a hot conſtitution, a ſweat is not eaſily raiſed, and the more you endeavour to raiſe one in ſuch ſubjects, by heaping on clothes, and giving powerful ſudorifics, ſo much the greater danger there is of cauſing a *delirium*, or, which is ſtill worſe, after having been deluded awhile with vain expectations, *peſtilential* ſpots are at length forced out inſtead of ſweat.

Its inconveniences.

31. (2.)

31. (2.) As the chief malignity of this diſeaſe lies in the moſt ſpirituous parts of the blood, whence the motion of its groſſer particles is generally ſomewhat more languid than in other inflammations, this finer part acquires a much more violent motion by this additional heat, and at length entirely breaks down all the *fibres of the blood now preternaturally diſtended.* And from this diſſolution of the ſanguineous fibres I judge the origin of the *peſtilential* ſpots or eruptions ſhould be derived; becauſe, like the marks left by violent ſtripes on ſome fleſhy part of the body, they are at firſt of a deep red, but ſoon after turn blue or black. Chap. 2.

32. (3.) Again, in ſuch as are pretty apt to ſweat, if the ſweat be ſtopt too early, *viz.* before the morbific matter be totally expelled, the *buboes*, which began to riſe kindly at the decline of the ſweat, by thus waſting a part of the matter intended to fill them, either readily ſtrike in, or at leaſt never become true abſceſſes (as it uſually happens in the *ſmall pox*, when the patient has ſweat copiouſly in the beginning) and the matter thereof being re-admitted into the blood, raiſes a violent motion therein, by which means the *peſtilential* ſpots, which denote imminent death, are often driven out in the manner above deſcribed.

33. But, in order to ſhew more clearly how to prevent theſe and other inconveniences, I will faithfully ſet down all I have done and obſerved in this diſeaſe, beginning from the firſt appearance of the late *plague*.

34. At the beginning of *May*, in the year 1665, I attended a lady, about one and twenty, of a ſanguine conſtitution, who, beſides the An extraordinary caſe.

Sect. 2. burning fever, which began a little earlier, had frequent vomitings, and other febrile ſymptoms. I began the cure with bleeding, and next day, to guard againſt a looſeneſs, directed a vomit, which operated pretty well: for, as I have already obſerved, a looſeneſs uſually comes in the declenſion of a fever, for want of giving a vomit, when it was indicated by the retchings in the beginning. Viſiting her next morning, I found ſhe had a looſeneſs, which perplexed me much, having rarely met with this ſymptom for ſome years before. Hence I judged that this was no common fever, as the event alſo ſhewed, and conſequently required to be treated in a different manner from that above mentioned, which I had hitherto conſtantly uſed with ſucceſs. Upon this, a ſenior phyſician being joined with me in conſultation, bleeding was repeated by our joint advice, which the age, conſtitution of the patient, and the violent ebullition of the blood, ſeemed to demand; moderate cooling cordials were alſo given, and glyſters injected every other day. At the decline of the diſeaſe, we directed ſome of the ſtronger alexipharmics, becauſe there aroſe very uncommon and irregular ſymptoms, which are generally eſteemed ſigns of conſiderable malignity; but all theſe means availed nothing, and the patient died about the fourteenth day.

Thoughts occaſioned thereby.

35. The ſingular nature of this fever ſet my head at work for ſome days afterwards; and at length recollecting, (1.) that the violent heat continued even after repeated bleeding; (2.) that the patient's cheeks were red; (3.) that ſome drops of blood diſtilled from her noſe a little before her death; (4.) that her blood when cold

cold resembled that taken away in a pleurisy; (5.) that she had a cough, and dull pains in the *vital parts*, or breast; and (6.) that it was that season of the year, which includes the end of spring and beginning of summer, and which is less disposed to produce continued fevers; all these dividing, as it were spontaneously, at this time, and either becoming intermittents, or suddenly turning to pleurisies, and the like inflammatory disorders; and lastly, (7.) that pleurisies were very *epidemic* at the same time: having, I say, duly considered these particulars, I concluded that this fever, though it had not the pathognomonic or distinguished signs of a *pleurisy* or *peripneumony*, was symptomatic, and occasioned by an inflammation lurking near the *vital parts*, though it was unaccompanied with pain in the side, or great difficulty of breathing. In short, I came at length to this conclusion, that I ought to have followed the same method here that I had frequently used in a pleurisy with good success. And, indeed, it afterwards fully answered my expectations; for being called some little time after this to a man affected exactly in the same manner, I began and finished the cure by repeated bleeding, after the method already commended in the *pleurisy*. And about the end of *May*, and beginning of *June*, this fever being then very *epidemic*, I recovered numbers by the same means. From this time forwards that dreadful *plague* began to rage with great violence, which afterwards made such devastation, that in the space of seven days it destroyed as many thousand persons in this city only.

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A new method of cure, the result.

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36. Whether the fever under conſideration deſerves to be entitled a *plague*, I dare not poſitively affirm; but this I know by experience, that all who were then ſeized with the true *plague*, attended with all its peculiar concomitants, and for ſometimes afterwards, in my neighbourhood, had the ſame train of ſymptoms both in the beginning and through the courſe of the diſeaſe. But when I was in danger from the near approach of the *plague* to the houſe wherein I lived, yielding at length to the ſolicitations of my friends, I accompanied the vaſt numbers that quitted the city, and removed my family ſome miles diſtant from it: but I returned to town ſo very ſoon afterwards, and whilſt the *plague* yet raged ſo violently, that on account of the ſcarcity of abler phyſicians, I could not avoid being called to aſſiſt the infected. And not long after I attended ſeveral perſons in fevers, which to my great ſurpriſe I found were of the ſame kind and nature as thoſe I had ſo ſucceſsfully treated before my departure: for which reaſon, truſting to my own experience for a better guide, and preferring it to all manner of trivial rules, I ſcrupled not to direct bleeding again.

The peſtilential fever cured by copious bleeding.

37. I continued this practice of plentiful bleeding, along with the uſe of a ptiſan and the like cooling diet, in numbers with wonderful ſucceſs; till at length it failed me in a few inſtances, through the obſtinacy of the patient's friends, who were ſo unreaſonably prejudiced againſt it, as not to let me take enough blood away, to the great detriment of the diſeaſed, from whom, as the cure turned chiefly upon bleeding, either a ſufficient quantity of blood, or

Miſchief of not taking away enough blood,

or none at all, ſhould have been taken away. Finding my endeavours ſo warmly oppoſed, I judged that the diſcovering another method of curing this diſeaſe would be of eminent ſervice for the future. Chap. 2.

38. I ſhall here relate an inſtance of the miſchief I once innocently did, not by bleeding, but becauſe I was hindered from taking away as much blood as I judged requiſite.—I was called to a young man of a ſanguine complection, and robuſt conſtitution, who had been ſeized with a violent fever two days before, attended with vertiginous pains in the head, exceſſive vomiting, and other ſymptoms of the like kind; and finding upon inquiry that there was no ſign of a ſwelling, I immediately directed a large quantity of blood to be taken away, the top whereof, when cold, reſembled corrupt, pleuritic blood; and I alſo preſcribed a ptiſan, and cooling julaps and broths. In the afternoon bleeding was repeated in the ſame quantity, and again, in like manner, the next morning. Calling upon him in the evening I found him much better, nevertheleſs his friends mightily oppoſed farther bleeding, which yet I earneſtly contended for, aſſuring them, that by bleeding him only once more he would be out of danger, but that if they continued to oppoſe it, bleeding had better have been wholly omitted, and the cure undertaken by ſweat; adding, in ſhort, that otherwiſe he would certainly die. The event confirmed my prognoſtic; for whilſt we were diſputing about the operation, we loſt the opportunity of doing it, for purple ſpots appeared next day, and the remains of the peccant matter, which ought to have been entirely carried Inſtanced in a particular caſe.

Sect. 2. carried off, (as bleeding ſo frequently repeated left no room to expect an abſceſs) corrupting the whole maſs of blood, and deſtroying the texture thereof by its extraordinary ſubtlety, the patient died in a few hours afterwards.

39. Having therefore frequently met with ſuch perplexing obſtacles, I ſolicitouſly bent my thoughts to diſcover, if poſſible, as effectual, and at the ſame time a leſs exceptionable method of curing this diſeaſe. And after frequent and long conſideration of the matter I pitched upon the following, which has ſince proved always ſerviceable, and every way complete.

A ſafer method ſubſtituted in its place.

40. Firſt, if a *ſwelling* has not yet appeared, I bleed moderately, according to the ſtrength and conſtitution of the patient, after which a ſweat is readily and expeditiouſly raiſed, which otherwiſe would not only be difficultly procured in ſome ſubjects, but there would alſo be danger of increaſing the inflammation thereby, and thus driving out the purple ſpots. And the immediately ſucceeding ſweat makes abundant amends for the conſiderable miſchief, which the loſs of blood, though in a ſmall quantity, would otherwiſe occaſion. After bleeding, which I direct to be done in bed, ſo ſoon as all things are in readineſs to raiſe a ſweat, I immediately order the patient to be covered over with clothes, and a piece of flannel to be applied to his forehead, which laſt expedient contributes more towards raiſing a ſweat, than one would eaſily imagine. Then, if the patient does not vomit, *I adminiſter theſe, or the like ſudorifics:** *Take*

* *I adminiſter theſe, and the like ſudorifics, &c. Theriaca*, and the like ſolid medicines, being offenſive to the ſtomach, are

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A ſudorific bolus.

Take of Venice *treacle, half a dram; the electuary of the egg, a ſcruple;* Gaſcoign's *powder, twelve grains; cochineal, eight grains; ſaffron, four grains; and the juice of kermes, enough to make the whole into a bolus; to be taken every ſix hours, drinking after it ſix ſpoonfuls of the following julap.*

A ſudorific julap.

Take of the diſtilled water of carduus benedictus, *and compound* ſcordium *water, of each three ounces; treacle water, two ounces; ſyrup of cloves, an ounce: mix them together for a julap.*

Sudorifics, when to be given.

41. But if there be a *vomiting*, as it frequently happens in the *plague* and *peſtilential fevers*, I forbear ſudorifics, till, by the weight of the clothes, and throwing part of the ſheet over the face now and then to collect the ſteams, the ſweat begins to appear. For it is well worth obſerving, that as ſoon as the rays of the morbific matter get to the circumference of the body, the looſeneſs and vomiting, occaſioned by their being turned back on the internal parts, and lodging in the ſtomach and inteſtines, immediately ceaſe ſpontaneouſly; ſo that how exceſſive a vomiting ſoever had preceded, the medicines afterwards taken are well retained, and ſucceed to our wiſh in exciting ſweat.

are not the moſt proper *ſudorifics*. I ſhould rather commend an infuſion in boiling water of *Virginia ſnake root*, or, in want of this, of ſome other warm *aromatic*, with the addition of about a fourth part of *aqua theriacalis*, and a proper quantity of ſyrup of lemons to ſweeten it. From which, in illneſſes of the ſame kind with the *goal fever*, which appears the neareſt to the *peſtilence*, I have ſeen very good effects. See Dr. Mead *on the Plague*, pag. 163.

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42. I remember that being deſired by an apothecary to viſit his brother, who was dangerouſly ill of a *peſtilential fever*, and mentioning the giving a ſudorific, he ſaid he had already given ſeveral ſtrong ones without effect, the patient having thrown them up by vomit. To this I anſwered, that he might prepare one of the moſt nauſeous of thoſe that had been exhibited, and I would eaſily prevent his vomiting it up. The event verified my promiſe; for the patient having firſt ſweated moderately, by the weight of the bed clothes only, kept down a large bolus of *Venice* treacle, which cauſing him to ſweat plentifully, he recovered.

The ſweat to be continued twenty-four hours.

43. But to reſume my ſubject: I direct the ſweat to be continued for twenty-four hours, by giving draughts of ſage poſſet drink, or mace ale, between times, ſtrictly cautioning againſt wiping off the ſweat, and not allowing the patient's linen to be changed, however moiſt or foul it be, till twenty-four hours after the ſweat is gone off: and this I recommend to be obſerved with particular care. For if the ſweat vaniſhes in leſs time, the ſymptoms immediately return with their former violence, and the health of the patient is greatly endangered, which a longer continuance of the ſweat would have quite ſecured.

Objections to it anſwered.

44. And, in reality, I wonder much at *Diemerbroeck* and others, when I conſider upon how ſlight a pretext they are induced to ſtop the ſweat, namely, to preſerve the ſtrength of the patient. For (1.) that the patient is ſtronger whilſt the ſweat flows than before, muſt have been obſerved by every one that is but ſlenderly acquainted with the treatment of this diſeaſe.

(2.) I shall not scruple to publish and defend what practice and experience have taught me, with respect to this matter. Several, who by my advice were kept in a sweat for twenty-four hours, have been so far from complaining of greater weakness from thence, that they have declared that in the same proportion the superfluous humour was thus carried off, they perceived their strength increase. And towards the latter part of the time I have often observed with surprise, that there appeared a more natural, genuine, and copious sweat than the former occasioned by the sudorific, and which gave greater relief, as if it were truly *critical*, and terminated the disease. (3.) Again, I do not see what inconvenience would attend refreshing the patient with restorative broths and liquids, when the sweat is at the height, and then the objection of want of strength to bear long sweats, vanishes. If, therefore, a faintness be perceived towards the end, I allow the patient to sup a little chicken broth, the yolk of an egg, or the like, which, together with the cordials and draughts, usually directed to keep up the sweat, sufficiently support the strength. But in a matter of fact so evident, it is needless to use many arguments; for what clearly shews the advantages of this method is, that whilst the patient continues to sweat, he judges himself in a fair way of recovery, and in the opinion of the attendants seems in no farther danger; but as soon as the sweat ceases, and the body begins to dry, he grows worse, a kind of relapse being thereby occasioned. Chap. 2.

45. For twenty four hours after the sweat is gone off, I advise the patient to be cautious of catching off. What is to be done after the sweat is gone

Sect. 1. catching cold, to let his linen dry on his body, take all his liquids warm, and alſo to continue the uſe of the ſage poſſet drink. Next morning I give the common purge, made of an infuſion of *tamarinds, the leaves of ſena, rhubarb, with manna and ſolutive ſyrup of roſes diſſolved in the ſtrained liquor. And by this method I recovered ſeveral perſons,** who were ſeized with a *peſtilential fever*

* *And by this method I recovered ſeveral perſons, &c.* The intentions of cure in the *plague*, as delivered by *Hoffman*, are, (1.) to aſſiſt nature in promoting the diſcharge of the poiſon received, by the proper outlets, and chiefly by thoſe critical tumours whereby it is generally expelled; and (2.) to keep up the ſtrength and ſpirits, and remove the urgent ſymptoms. He adviſes to be ſparing in the uſe of remedies, obſerving that few are beſt: and judiciouſly cautions againſt heating medicines, or alexipharmics, as they are commonly entitled, which increaſe the anxiety and heat, promote the diſſolution of the juices, and force the *peſtilential miaſm* from the firſt paſſages into the blood, and upon the nervous parts: of this kind are all volatile, urinous, and oleous ſpirits, and volatile ſalts. Mixtures with acids are given with great advantage and ſafety. Opiates generally prove detrimental, but mild cordials do ſervice. An emetic is very proper to be given, as ſoon as a ſickneſs at ſtomach is perceived along with a *cardialgia*; and being immediately followed by a ſudorific, has been found to remedy the diſeaſe in the beginning. *Nitre* is excellent in full habits, bilious, or ſanguine conſtitutions, and where the heat is conſiderable, the fever violent, and accompanied with thirſt, and pain in the head. But where there is a drowſineſs, low pulſe, coldneſs of the extremities, and great terror has preceded, nitrous medicines ſhould be refrained. It is always ſafer to mix *nitre* with *camphire*, whereby the vapourous nature of the *camphire*, and the cooling one of the *nitre* are admirably corrected, and a medicine obtained, that is not only alexipharmic, but effectually checks an inflammation. Laxatives are extremely hurtful in the beginning of the diſeaſe, but excellent in the declenſion. The extreams of heat and cold are equally to be avoided in the courſe of the cure.

Buboes,

fever the year after the plague, and did not loſe a ſingle patient after I began to uſe it. Chap. 2.

46. But

Buboes, if they appear late, ſhould be promoted by drawing applications, cupping glaſſes, and even bliſters. When they appear, their ſuppuration is to be promoted by digeſtive cataplaſms, prepared of *figs*, *the roots of white lilies*, *roaſted onions*, *linſeed meal*, *honey and ſaffron*; or by ripening plaiſters applied thereto, ſuch as *diachylon with the gums*, *melilot*, *or mucilage plaiſter*. After ſuppuration they are to be opened and cleanſed, and incarned with balſam of *Arcæus*, mixt ſometimes with *baſilicon*; allowing time for the *ſanies* to be diſcharged, and not healing them up too haſtily. The cure of *carbuncles* is to be attempted by anointing their edges by a digeſtive liniment, and covering them with cataplaſms made of *roaſted garlick*, *pigeons dung*, Venice *treacle*, and *oil of turpentine*; and when the eſchar, or ſcab, falls off, anointing the place with *Egyptian ointment*, or the like. But if there be a gangrenous corruption, and it ſeems to ſpread, the part affected muſt be ſcarified, and a liquor applied thereto, which powerfully checks inflammation and corruption; ſuch as the following, the good effects whereof I have frequently experienced:

Take of rectified ſpirit of wine, four ounces; camphire, two drams; ſaffron, and artificial nitre, each a dram: let them infuſe together.

Artificial nitre is made of ſpirit of ſal ammoniac and ſpirit of nitre, and perfectly diſſolves in ſpirits of wine.

If theſe means fail, have recourſe to the actual cautery, and afterwards, to ſoften the eſchar, anoint with freſh butter.

By way of prevention, the ſafeſt and likelieſt means to be uſed are, (1.) to quit the infected place; (2.) to avoid whatever weakens the body, checks perſpiration, and breeds crudities in the firſt paſſages; as exceſſive bodily labour, too intenſe application of mind, fitting up late, warm bathing, all copious evacuations, overloading the ſtomach, *&c.* (3.) if the body be full of foul humours, to correct their vitiated quality, by temperate balſamics mixed with acids, taken in a moderate doſe, and not too frequently; (4.) to drink generous liquors at proper times in moderation, and eſpecially rheniſh wine, which, on account of its gentle acidity,

Sect. 2.

Bleeding, how practicable with ſafety.

46. But where a ſwelling has appeared, I have hitherto forbore bleeding, even in ſuch as are not very apt to ſweat, apprehending the ſudden death of the patient might prevent the intended ſweat, from a return of the morbific matter into emptied veſſels. Yet bleeding might perhaps

dity, is eſteemed excellent againſt putrefaction; and laſtly, (5.) to guard againſt violent paſſions, endeavouring to preſerve a conſtant firmneſs of mind, and ſhaking off all timorouſneſs and dejection.——Thus far the excellent *Hoffman*. To which we ſhall ſubjoin that of Dr. Cullen—In order to moderate the violence of re-action, he recommends the antiphlogiſtic method; though bleeding, he obſerves, may be proper in ſome caſes, for the moſt part it is unneceſſary, and in many caſes hurtful; and purging may be uſeful in drawing off the bile and other putreſcent matters frequently preſent in the inteſtines; ſtill large evacuations this way may be certainly hurtful. For the ſame purpoſe he alſo adviſes the uſe of *diluents, neutral ſalts, ſudorifics, and emetics, bliſtering, and warm bathing*. The giving an emetic at the very firſt approach of the diſeaſe, he adds, would probably be of great ſervice; and it is likely, that at ſome other period of the diſeaſe emetics might be uſeful, both by evacuating bile abundant in the alimentary canal, and by taking off the ſpaſm of the extreme veſſels. After the exhibition of the firſt vomit the body ſhould be diſpoſed to ſweat, which ſhould be raiſed to a moderate degree only, but continued twenty-four hours or longer, if the patient can bear it; excited and continued by the means laid down in a former note.

But if notwithſtanding the uſe of ſudorifics and emetics the diſeaſe ſhould continue, the cure muſt depend upon the employment of remedies for obviating debility and putreſcency; and for this purpoſe various tonics may be adminiſtered; but the beſt and moſt efficacious are cold drink, and Peruvian bark: reſpecting the management of carbuncles and buboes, though ſome attention is due to that point, he leaves that to the province of ſurgery. (See Cullen's *Practice of Phyſic*. vol. ii. pag. 216. §. 687, *&c.*)—Yet it has been obſerved, that acrid and cauſtic applications applied to the buboes, and opening them by inciſion, did not anſwer; theſe ſwellings did beſt when entirely left to nature, or healed only with emollients. *W.*

be

be uſed ſafely enough, provided a ſweat were raiſed immediately afterwards, which being continued for the ſpace above mentioned, may diſperſe and waſte the whole maſs of the humour by degrees, and with much leſs danger than would attend the waiting a long time for a kindly ſuppuration of the impoſthume, which is very uncertain in ſo violent a diſeaſe. Chap. 2.

47. To conclude; wherever it ſhall appear to the reader that I am miſtaken in point of theory, I aſk his pardon; but with reſpect to practice I declare that I have faithfully ſet down all particulars, and have no where propoſed any thing which I have not thoroughly experienced: and, in truth, when I come to die, I truſt I ſhall have the ſatisfaction of being inwardly aſſured, that I have not only endeavoured, with the utmoſt diligence and integrity, to recover the health of all thoſe who have been my patients, of whatever rank or condition they were, none of whom have been otherwiſe treated by me, than I deſire to be, if I ſhould be ſeized with the ſame diſtempers; but alſo that I have contributed to the utmoſt of my abilities, that the cure of diſeaſes might, if poſſible, be proſecuted with greater certainty after my diſeaſe; being of opinion, that any acceſſion to this kind of knowledge, though it ſhould teach nothing more pompous than the cure of the tooth-ach, or corns, is of much greater value than all the vain parade of refinements in theory, and a knowledge of triſles, which are perhaps of as little ſervice to a phyſician in removing diſeaſes, as ſkill in muſick is to an architect in building.

48. In the laſt place, I ſhall ſubjoin a ſhort note, leſt, perhaps, my opinion of *Nature* be taken The term *Nature* explained.

Sect. 2. taken in a wrong ſenſe, or at leaſt not ſufficiently underſtood. In the foregoing diſcourſe I have frequently made uſe of the term *Nature*, and aſcribed various effects to her, as if I would thereby repreſent ſome one ſelf-exiſting being, but every where diffuſed throughout the machine of the univerſe, which, being endowed with reaſon, governs and directs all bodies, ſuch a one as ſome philoſophers ſeem to have conceived the *ſoul* of the *world* to be: but as I neither affect novelty in my ſentiments or expreſſions, I have made uſe of this antient word in theſe pages, if I miſtake not, in a qualified ſenſe only, and as it is underſtood and applied by judicious perſons; *for by Nature I always mean* * "a certain

* *For by Nature, I always mean, &c.* Notwithſtanding the great variety of definitions which have been given of this term, I have not yet met with one ſufficiently ſatisfactory to merit the full adoption; they all lie open to ſuch ſtrong objections.—HIPPOCRATES calls nature "the aggregate of all things that concur to perfect health;" and VAN SWIETEN, copying after him, ſays, "It is nothing "more than the aggregate of all thoſe phyſical and natural "conditions, which are required to make life moſt regular, "and durable, and mobility moſt active; but this is perfect "health: if any thing is wanting nature is deficient, and "that defect is diſeaſe."

HOFFMAN briefly defines it, "a word uſed to ſignify "the ſtructure, mechaniſm, and contrivance of the body, "acting with certain powers according to certain neceſſary "and mechanical laws aſſigned it by its Maker."

VAN HELMONT aſſerts, "that nature is a command of "God, and performs what ſhe is commanded."

MEAD conſiders it as ſome incorporeal power acting upon the different parts of the machine—which power he concludes to be the mind; for, ſays he, "thoſe very motions "which are generally called natural and vital, as thoſe of "the heart, lungs, and inteſtines, which perſevere through "the whole courſe of life, even when the will cannot be "con-

" tain assemblage of natural causes, which, Chap. 2.
" though destitute of reason and contrivance,
" are directed in the wisest manner, whilst they
" perform

" concerned in them; as they have their beginning from the
" mind, so they are perpetually under its direction."

The three former consider the different properties of various parts of the human machine united and regularly conducted as nature; whilst the two latter conclude, that something acting upon the various parts, and putting, and keeping them in action, as more properly and more fully descriptive of the term.

Now as we are certain, that there is some power by which the body is enabled to exist; that *that* power depends upon the regular motions of the solids and fluids; that as matter, of which they consist, cannot move by itself, and without that motion life would terminate, the continuation of which motion we attribute to nature; it is clear that something must be understood by that term more than the united properties of the component parts of the machine.—HELMONT calls in the Jussum Dei—the Jussum Dei then may be disease, according to his definition, which we cannot admit; disease we think something inferior.—Nor can we consider it, according to MEAD, to be the mind; for if all communication be cut off between the mind and any part of the body, that part cannot be said to act by its influence: but the heart taken out of the body will exercise its systolic and diastolic motion for a considerable time under proper situations.—From hence, then, it is clear, that the human body is neither more nor less than an instrument upon which nature performs her various operations for the purposes for which the machine was created, and that disease is nothing but a defect, or imperfection in that instrument, occasioned by some material or mental cause inherent, or accidental, and not a deficiency of nature; which universally considered we take to be an agent of Divine Providence, endowed with limited powers, which she exercises for the formation of bodies, and other particular purposes, in order to promote the ends for which they were ordained; that she cannot transgress those bounds; that in herself she is ever perfect, and when any imperfections happen in bodies, in the animal, vegetable, or mineral kingdoms, they are owing to some circumstances in which those bodies are placed, or with which they are connected, and not to any defect in nature.

Sect. 2. " perform their operations, and produce their " effects :" Or, in other words, that Supreme Being, by whoſe power all things are created and preſerved, diſpoſes them all in ſuch manner, by his infinite wiſdom, that they proceed to their appointed functions with a certain regularity and order, performing nothing in vain, but only what is beſt and fitteſt for the whole frame of the univerſe, and their own peculiar nature ; and ſo are moved like machines, not by any ſkill of their own, but by that of the artiſt.

This is nature conſidered in its moſt general ſenſe ; but when we apply the term to particular bodies, ſomething elſe ſeems neceſſarily included in the definitions reſpecting, and peculiar to thoſe bodies.—Thus then applied to the human machine, we would ſay ; that nature is the powers, inherent in the ſyſtem, put into, and continued in action, by the force of the living, or vital principle ; and when diſeaſe occurs it is owing to ſome circumſtances happening to the ſolids or fluids of the human machine, or to ſome ſituation into which they are thrown, from whence they cannot perfectly exerciſe thoſe powers, or feel the impulſes of the vital principle, and not to any defect or imperfection in thoſe powers, or principles. We ſhall offer one inſtance in proof.—A man walking in apparent health ſhall, from the burſting of ſome large blood veſſel, drop dead inſtantaneouſly ; here appears no previous defect of the conſtitutional powers, or the vital principle, their action only ceaſes in conſequence of the vaſcular rupture ; becauſe the circulation of the blood, for want of vaſcular continuation, is deſtroyed by this accident ; the defect then lies in the inſtrument in which theſe inherent powers reſide, and on which this principle aſſerts its action, and not in the powers or principle themſelves—and this will apply to every other ſpecies of diſeaſe. *W.*

SECTION

SECTION III. CHAP. I.

Chap. 1.

The epidemic Conſtitution of the Years 1667, 1668, *and part of* 1669, *at* London.

1. IN the year 1667, at the approach of the *vernal equinox*, the *ſmall pox*, which, during the immediately preceding *peſtilential conſtitution*, appeared very rarely, or not at all, began to ſhew itſelf, and ſpreading more and more every day, became *epidemic* about *autumn*; after which, its violence being abated by degrees, upon the coming on of the *winter*, it decreaſed, but returned again the following *ſpring*, and prevailed, till it was checked, as before, by the ſubſequent *winter*. It afterwards increaſed a third time with the approaching *ſpring*, but did not then rage ſo ſeverely, nor ſo generally, as it had done the two foregoing *ſummers*: and in *Auguſt* 1669, it totally diſappeared, and was ſucceeded by an *epidemic dyſentery*. The *ſmall pox* was more general in town for the firſt two years of this conſtitution, than I ever remembered it to have been, either before or ſince; and nevertheleſs, as it was at that time the genuine and a kindly ſort, it deſtroyed few in compariſon of the multitudes that were ſeized with it.

The progreſs of the *ſmall pox* of this conſtitution.

A good kind.

2. At the ſame time the *ſmall pox* firſt appeared, there aroſe a new kind of *fever*, not much unlike it, except in the eruption of the puſtules, and the ſymptoms thereon depending; of which I ſhall treat particularly in the following pages. This *fever*, though it affected fewer perſons by far than the *ſmall pox*, did notwithſtanding laſt as

A new *fever* aroſe at the ſame time,

Sect. 3. long; but in the *winter*, when that abated, this prevailed, and when the *ſmall pox* returned again in the *ſpring*, the *fever* went off, ſo as thus to leave the *ſmall pox* the *predominant epidemic* of this conſtitution; the *fever* notwithſtanding never manifeſtly ceaſed during this ſpace, till at length it totally diſappeared, together with the *ſmall pox*, in *Auguſt* 1669.

And a *looſeneſs*. 3. Theſe two *epidemic* diſeaſes were accompanied by a third, eſpecially the laſt *ſummer*, wherein this conſtitution prevailed, *viz.* a *looſeneſs*, the conſtitution of the air then inclining to the ſubſequent *dyſentery*. But however this be, at leaſt it appeared that this diſeaſe ſo nearly reſembled the then reigning *fever*, that it ſhould ſeem to be only the *fever* turned inwards, and fixed upon the bowels.

4. I ſhall treat of theſe three diſorders ſeparately, which may juſtly be called the ſole *epidemics* of this conſtitution. I begin with the *ſmall pox*, of which I ſhall diſcourſe more at large, becauſe the kind that prevailed during this term of years ſeemed to me to be more particularly *genuine* and *regular* than any other, inaſmuch as it exhibited the ſame phenomena, and was every where attended with the ſame train of ſymptoms in all that were ſeized with it; from which, therefore, as being the moſt perfect in its kind, a true hiſtory of this diſeaſe, and the method of cure are to be taken.

Every conſtitution attended with its peculiar fever and ſmall pox. 5. For it muſt be obſerved, that every particular conſtitution of years has not only a proper and peculiar *fever* belonging thereto, but alſo a peculiar kind of *ſmall pox*, which reſembles this ſpecies for this courſe of years, but a different one in the following years, though they may ſeem

seem to resemble each other as to certain appear- Chap. 2.
ances which are common to all the kinds: so much does nature vary in the production of *epidemic* diseases.

6. But to resume the subject, I will first, give the history of this kind, of the *small pox*; which I therefore call the regular kind, to distinguish it from the irregular kinds of the following years; and I will also subjoin the method of cure, which was attended with all desirable success.

CHAP. II.

*Of the regular Small Pox * of the Years* 1667, 1668, *and Part of the Year* 1669.

1. THE *small pox* in those years it is *epidemic*, when it is also mild and *regular*, usually begins about the *vernal equinox*, as did that now under consideration; but in those years wherein When the *small pox* begins.

* *Of the regular small pox, &c.* Dr. Cullen arranges this disease under his class PYREXIÆ, and order EXANTHEMATA, and defines it,

A contagious inflammatory fever, attended with vomiting and pain upon pressure on the epigastrium. An eruption of inflammatory papulæ begins on the third, and ceases on the fifth day, which in the space of eight days suppurate, and form scales, leaving afterwards in the skin cicatrices depressed, or pits.

This he divides into two species; the first of which takes in this of our author, here to be treated of, and which he calls,

VARIOLA DISCRETA, and thus defines it,

The distinct small pox, attended with pustules few in number, distinct, circular in their circumference, and turgid; the fever ceasing immediately when the eruption is completed.—*Synopsis Nosologiæ methodicæ*, vol. ii. pag. 131.

With respect to the second, or confluent species, for the definition and arrangement, see *anomalous small pox of the years* 1674, 1675, *note the first.*

Sect. 3. it is not only *epidemic*, but likewiſe *irregular*, and of a more dangerous kind, it ſometimes appears ſooner, *viz. in the month of January*, * ſeizing whole families, and ſparing none, of what age ſoever they be, unleſs ſuch as have already had it, not even ſuffering thoſe to eſcape who have been afflicted *with the baſtard kind*, † which are no way a-kin to this diſeaſe. There are two kinds of this *ſmall pox*, as well as of that which happens *in all years*, the *diſtinct* and *confluent*, which, though they differ not eſſentially, as ſome phraſe it, are yet eaſily diſtinguiſhed by ſome remarkable ſymptoms peculiar to each kind.

* *In the month of January, &c.* BOERHAAVE obſerves, that if the *ſmall pox* ariſes in a place where it has not appeared for ſix years paſt, either towards the end of *January* or in *February*, the following ſummer will be attended with a dangerous kind; but it may be eaſily cured in the beginning. Hence great attention muſt be had here to the nature of the diſeaſe, and the particular treatment it demands, *&c.* ſo that in the ſummer, when it will be of an extremely bad kind, we may be prepared to give ſuch medicines as agree beſt with this *epidemic* ſpecies; though it then generally proves mortal. But if the *ſmall pox* appears in *May*, it will be gentle, and of a favourable and healthful kind.—See *Prax. Med.* vol. v. p. 299.

† *With the baſtard kind, &c.* SYDENHAM has not particularly ſpecified what he means by this term; it was probably the chicken pox, which is attended with an inflammatory fever, and has puſtules breaking out ſomething like the ſmall pox, but ſcarcely maturate, dry away in a few days, and leave no marks behind them.—Boerhaave has ſuppoſed that the ſmall pox may attack the ſame perſon twice; for ſays he, "if a perſon has had the diſtinct kind, "he yet may have the confluent one:"—I cannot think ſo; for the matter producing both one and the other of theſe ſpecies is ſimilar, and the difference of the appearance ariſes more from ſome conſtitutional or accidental circumſtances, than any difference in the morbid miaſmata, as the practice of inoculation ſufficiently evinces. *W.*

Chap. 2.

2. (1.) The *distinct* kind begins (1.) with a chilness and shivering, immediately followed by (2.) extreme heat, (3.) violent pain in the head and back, (4.) vomiting, (5.) and in grown persons a great tendency to sweat; for I never observed such a disposition in children, either before or after the eruption; (6.) pain in the parts immediately below the *scrobiculus cordis*, if they be pressed with the hand; (7.) sleepiness and *stupor*, especially in children, and sometimes convulsions, which happening after dentition is over, I always suspect the *small pox* to be just approaching, and the eruption appearing in a few hours afterwards generally verify the prognostic: so that, for instance, if a child be seized with a convulsive fit over night, as it usually happens, the *small pox* comes out next morning; and I have frequently observed, that the *small pox* immediately succeeding such fits throws out large eruptions, is of a mild and favourable kind, and seldom proves confluent. And these are almost all the symptoms that accompany this disease in the beginning, and generally precede the eruption of the pustules.— But it may be proper to observe here, that where the blood is of a looser texture, and so easily admits of a change, it sometimes happens that the *separation* is performed by degrees without any considerable sickness, before the expulsion of the matter shews itself by the eruption of the pustules.

Leading symptoms in the *distinct* kind.

Time and manner of the eruption.

3. The *distinct small pox* comes out mostly *on the fourth day* inclusive from the beginning of the illness, and sometimes a little later, but very seldom sooner; at which time the symptoms are usually much abated, or even go quite off, so that the patient thinks himself pretty well; but

grown

Sect. 3. grown perſons are ſo inclined to ſweat, that it can hardly be prevented, however thinly they are covered; and this diſpoſition continues till the puſtules begin to ripen, and then vaniſhes ſpontaneouſly. The eruption proceeds nearly in the following manner; pale red puſtules, as large as the head of a ſmall pin, ſhew themſelves here and there on the face firſt, or on the neck and breaſt, and afterwards on the whole body. During this ſtage of the diſeaſe, the throat is affected with a ſoreneſs that increaſes as the puſtules riſe, which growing every day fuller and plumper, enflame the ſkin and fleſh of the neighbouring parts.

Beginning and progreſs of the ſuppuration.

4. For *about the eighth day* from the beginning of the diſeaſe, which is a time I always take particular notice of here, the ſpaces between the puſtules, that appeared before of a pale white, begin to grow red, and ſwell in proportion to the number of puſtules, with a throbbing pain of thoſe parts, which continually increaſing occaſions the inflammation and ſwelling above mentioned, ſo that in the progreſs of the diſeaſe the eyelids are ſo filled and diſtended, as ſometimes to make the patient blind, and this tumour looks like a ſhining inflated bladder drawn over them. The blindneſs comes on ſooner, if a great number of puſtules fix on the eyes at the beginning of the eruption; immediately after the face, the hands and fingers ſwell in proportion to the number of eruptions. The puſtules on the face, that till this day were ſmooth and red, now grow rough and whitiſh, which indeed is the firſt ſign of a beginning ſuppuration, and they likewiſe gradually diſcharge a yellow matter, in colour reſembling

bling a honeycomb. The inflammation of the hands and face being in the mean time come to its height, cauſes the ſpaces between the eruptions to look of a pretty florid colour, not unlike a damaſk roſe; and in reality, the more mild and genuine the *ſmall pox* is, ſo much more the eruptions and their intermediate ſpaces approach this colour. As the puſtules in the face appear rougher and yellower every day as they ripen, ſo, on the contrary, thoſe of the hands and other parts appear ſmoother and not ſo white. Chap. 2.

5. *On the eleventh day* the ſwelling and inflammation manifeſtly abate, and the eruptions both of the face and the reſt of the body, being come to their maturity and juſt bigneſs, (which in theſe years equalled that of a large pea) dry and ſcale off; and in this kind of *ſmall pox* they uſually quite diſappear *on the fourteenth* or *fifteenth day:* but the eruptions of the hands being generally more obſtinate than thoſe of the other parts, and yet freſh and white, remain a day or two after the reſt, and thoſe of the face and body ſcale off; but theſe burſt, and ſo vaniſh. The puſtules of the face are ſucceeded by a ſcurf, or branny ſcales, and theſe ſometimes by pits or pock-marks; for when the puſtules firſt fall off, the ſkin looks ſmooth, but theſe ſcales coming on and falling off alternately, do at length make thoſe pits that frequently continue viſible long after the recovery of the patient in this diſeaſe; though the *diſtinct ſmall pox* very rarely leaves any marks behind it. It was chiefly that kind that raged the laſt ſix months of the year, that pitted, for thoſe which preceded made no marks, unleſs it proved the *confluent* The puſtules begin to dry on the 11th day.

Sect. 3. *fluent* ſort, as we ſhall hereafter remark. The patient was either quite coſtive, or had few ſtools throughout the whole courſe of the diſtemper. And let this ſuffice for the *diſtinct ſmall pox.*

The confluent ſmall pox deſcribed.

(6.) (2.) That kind of the *ſmall pox* which we call the *confluent*, is attended with the ſame ſymptoms in common as the *diſtinct*, only they are all more violent; *the fever, anxiety, ſickneſs,** and vomiting, *&c.* being more ſevere, by which ſigns a ſkilful phyſician diſcovers it to be the *confluent* kind, even before the eruption: nevertheleſs, the patient is not ſo ready to ſweat in this kind as in the other juſt deſcribed, where the great tendency thereto generally foreſhews that the *ſmall pox*, which will ſoon appear, will not run together. Moreover, a *looſeneſs* ſometimes precedes, and continues a day or two after the eruption; which I have not hitherto met with in the diſtinct ſmall pox.

The puſtules generally come out on the 3d day.

7. *This kind of ſmall pox* † generally comes out on the *third* day, ſometimes earlier, but ſcarce

* *The fever, anxiety, &c.* To which may be added, the pulſe is more frequent, and more contracted, approaching to that ſtate of the pulſe which is found in the typhus; the coma is more conſiderable, and there is frequently a delirium. In very young infants, epileptic fits are ſometimes frequent on the firſt days of the diſeaſe, and ſometimes prove fatal before any eruption appears, or they uſher in a very confluent and putrid ſmall pox.—Cullen's *Practice of Phyſic*, vol. ii. pag. 132. ſect. 590. *W.*

† *This kind of ſmall pox, &c.* Moſt practitioners obſerve, that the ſlower the ſmall pox comes out, the milder they prove, and the better they ripen: thoſe appearing on the firſt day of the illneſs are eſteemed the worſt kind; thoſe on the ſecond, milder; thoſe on the third, ſtill more gentle; and on the fourth, the moſt favourable.—Boerhaave, *Prax. Med.* vol. v. pag. 302.

ever

ever later, whereas the *diſtinct* appears on the *fourth* day incluſive from the beginning of the diſtemper, or later, but very rarely before, and the ſooner the puſtules come out before the fourth day, the more they run together. However, though to ſpeak in general, the *confluent* kind ſcarce ever appears ſo late as the fourth day, yet ſometimes the eruption may be deferred by ſome violent ſymptom to the fourth or fifth day; *e. gr.* (1.) ſometimes a ſharp pain in the loins, reſembling a fit of the ſtone; (2.) ſometimes in the ſide, like a pleuriſy; (3.) ſometimes in the limbs, as in the rheumatiſm; or laſtly, (4.) in the ſtomach, attended with great ſickneſs and vomiting. In theſe caſes, which however are not common, I have obſerved the ſmall pox to come out later than ordinary, as being retarded by the extreme violence of the ſymptoms above enumerated; which, indeed, being more ſevere than uſual, when they ariſe in the very beginning, manifeſtly indicate that the ſubſequent ſmall pox will be of the *confluent* kind, and not void of danger. Chap. 2.

8. I proceed next to remark, that though the ſymptoms accompanying this diſeaſe in the beginning, in the *diſtinct* kind, go off, as I ſaid above, immediately after the eruption, it nevertheleſs happens much otherwiſe in the *confluent* kind; the fever and other ſymptoms afflicting the patient for ſeveral days after the puſtules appear.

9. Sometimes this ſort comes out like an *eryſipelas*, and ſometimes like the *meaſles*; from which they cannot be diſtinguiſhed, at leaſt as to the outward appearance, unleſs by a phyſician well acquainted with theſe diſeaſes. But whoever

Sometimes they come out like an *eryſipelas*, or the *meaſles*.

Sect. 3. ever carefully attends to the different time of the eruption in theſe diſeaſes, and other circumſtances, which, from the hiſtory of each, will be found to differ extremely, will readily diſtinguiſh them. As the diſtemper increaſes, the puſtules, eſpecially thoſe of the face, do not riſe ſo high as in the *diſtinct* kind; *but running together*, appear at firſt like a red bladder, *covering the whole face*,* and making it to ſwell ſooner than in the *diſtinct* ſort, and at laſt they appear like a thin white pellicule, cloſely adhering to the face, and riſing little higher than the ſurface of the ſkin.

Begin to dry after the 8th day.

10. After the *eighth day* this pellicule grows every day gradually rougher, as appears by the touch, and inclines to a *brown*, and not to a *yellow* colour, as in the *diſtinct* kind. The roughneſs and colour of the ſkin daily increaſe, till at length the pellicule falls off in large ſcales; but when the diſeaſe has been very ſevere, it uſually ſticks to ſome parts of the face till after the twentieth day. The more violent the *ſmall pox* proves, the neater the eruptions, as they ripen, incline to a dark brown colour, and the longer they are in falling off, if left to themſelves; whereas contrariwiſe, the leſs they run together, the yellower they grow, and the ſooner they ſcale off. When this pellicule or ſcab, which covers the face, firſt falls off, it leaves no roughneſs behind, but is immediately ſucceeded by

* *But running together, cover the whole face, &c.* On the other parts of the body the puſtules of the confluent ſmall pox are more diſtinct than upon the face, but never acquire the ſame maturity and conſiſtence of pus as in the properly diſtinct kind.—Cullen's *Practice of Phyſic*, vol. ii. pag. 132. ſect. 592. *W.*

branny

branny scales of a very corrosive nature, which not only make larger pits than the *distinct* kind generally do, but also much disfigure the face with unseemly scars: and in the *confluent* kind, if the disease has been very violent, the skin of the shoulders and back sometimes scales off, leaving these parts bare. Chap. 2.

11. It must be observed, that this disease is not to be esteemed *dangerous, because the body is full of pustules,** but from the great number of them in the face; for if that be exceeding full, though they are but few, and those of the *distinct* kind every where else, yet the patient is equally endangered, as if all the limbs were extremely full: but on the contrary, though every part beside be very full, if there be but few in the face, the danger is less. What has been said of the number of the eruptions, may also be affirmed of the kind, for the face plainly shews whether it be mild or severe. Whence the danger in this disease.

12. I have always observed in the *confluent small pox*, that the eruptions in the hands and feet were larger than those of the other parts, and were gradually less and less the nearer they approached the body. And these are the observations on the eruptions, which I thought proper to premise. The pustules largest in the hands and feet.

* *Dangerous, because the body is full of pustules, &c.* It is on this account that bathing the feet in warm water, and keeping them afterwards warm, is advisable, in order to drive the flux of humours to the lower extremities, that fewer eruptions may occupy the face; for it is observed, wherever the parts of the body are kept in a state of warmth more than common, there the eruption is apt to break out most copiously. *W.*

Sect. 3.

A *ſalivation* and a *looſeneſs* attend this kind.

13. The *confluent ſmall pox* is attended with two other ſymptoms not leſs conſiderable than the eruptions, the ſwelling, or any one of thoſe above mentioned, *viz.* (1.) a *ſalivation* or *ſpitting* in grown perſons, and (2.) a *looſeneſs* in children. The former is ſo conſtant an attendant on this diſeaſe in grown perſons, that I never met but with one patient in this kind who was free from it; but the latter, namely the looſeneſs, does not ſo certainly affect children. Whether provident nature has therefore ſubſtituted theſe evacuations, becauſe in this ſmall and flat ſort the morbific matter cannot be ſo entirely diſcharged as by the larger and higher eruptions in the *diſtinct* kind, is what I do not pretend to determine; for I only write a hiſtory, and do not undertake to ſolve difficulties. This, however, I certainly know, that theſe ſymptoms not only generally accompany the *confluent ſmall pox*, but that the evacuation made thereby is as neceſſary as either the eruptions, or the ſwelling of the face and hands.

When the ſalivation begins and ends.

14. The *ſpitting* ſometimes begins as ſoon as the eruptions appear, and ſometimes not till a day or two after. The matter is for ſome time thin, and eaſily and plentifully expectorated; and, indeed, this ſalivation is not much unlike that raiſed by *mercury*, only the *ſaliva* here does not ſmell ſo diſagreeably. But towards the *eleventh* day, the *ſaliva*, now become more viſcous, is raiſed with great difficulty; the patient is thirſty, coughs often whilſt he drinks, and the liquor flies out at the noſtrils; and from this day the ſalivation generally ſtops, though ſometimes, but very rarely, after it has ceaſed entirely for a day or two, it returns again. On the ſame day

the ſwelling of the face and the ſpitting begin to abate, but then, inſtead of them, the hands commonly ſwell, or, at leaſt, ought to do ſo. Chap. 2.

15. A looſeneſs does not ſeize children ſo ſoon as a ſalivation does grown perſons; but whenever it begins, unleſs it be ſtopped by art, it attends the diſtemper throughout.

16. In both kinds of the *ſmall pox the fever rages moſt* * from the beginning to the time of the eruption, after which it abates, and continues much more moderate till the ſuppuration begins, which being finiſhed it goes off entirely. The fever, when higheſt.

17. I have always obſerved when the diſeaſe proved very violent, that the patient had a kind of fit towards evening, at which time, eſpecially, the more dangerous ſymptoms aroſe, and raged moſt ſeverely.

18. Having now given an accurate hiſtory of this kind of *ſmall pox*, including its true and genuine ſymptoms, riſe, and progreſs, as it naturally appears, I proceed next to treat of the *irregular ſymptoms*, which happen in this diſeaſe, when it is unſkilfully treated.

19. It is to be noted therefore, that the irregular ſymptoms happening on the *eighth* day, in the *diſtinct* kind, and on the *eleventh* in the *confluent* (always calculating from the firſt beginning of the diſtemper) do moſt eminently concern the life or death of the patient, and ought The 8th day in the *diſtinct* moſt dangerous.

* *The fever rages moſt, &c.* In the confluent ſmall pox, the fever which had only ſuffered a remiſſion from the time of eruption to that of maturation, is often at, or immediately after, this period, renewed with conſiderable violence. This is what is called the SECONDARY FEVER, and is, in different caſes, of various duration and event.—Cullen's *Practice of Phyſic*, vol. ii. pag. 137, ſect. 192. *W.*

Sect. 3. therefore to be thoroughly considered; it being apparent, that most of those who perish by either kind, die on the above-mentioned days in each.

The hot regimen, where improper.

20. For first in the *distinct* kind, if the patient sweats pretty freely, which, as we remarked above, usually happens in grown persons, he conceives all will go well, hoping the venom or malignity of the disease will by this means be expelled through the pores of the skin, and therefore thinks it right to promote the sweat by cordials and a hot regimen; and he pursues this method the more willingly, both because he seemed to have been relieved thereby in the beginning, and likewise because it agrees better with the ill-grounded opinion of the attendants. But those particles being at length expelled by sweat, which should have served to raise the pustules, and swell the face, on the *eighth* day, the face, which ought to swell and be inflamed in the intermediate spaces, contrariwise appears flaccid, and those spaces white, or pale, whilst the pustules look red, and continue elevated even after the death of the patient. And the sweat, which had flowed freely to this day, now ceases suddenly and spontaneously, and cannot be raised again even by the warmest cordials. Mean time the patient is seized with a delirium, great restlessness and sickness, a frequency of making urine in small quantities, and dies in a few hours, contrary to expectation. But it must here be observed, that if the eruptions be few, the disease happen in the winter, and in a person in years, or if bleeding has been used, this hot regimen, of which we have just treated, does not then so certainly hinder the swelling of the face, and is not

The mortal symptoms thence occasioned.

so

so fatal, as where the eruptions are many, or the disease happens in the spring or summer season, and the patient is in the prime of life, and no blood has been taken away. Chap. 2.

21. But in the *confluent* kind there is most danger, and the greatest number die on the *eleventh* day; for as the spitting, which had hitherto preserved the patient, commonly ceases spontaneously about this time, unless the swelling of the face keeps up a little longer, and that of the hands, now manifestly beginning, supplies its place, death must needs ensue. For it must be considered, that in this time of *small pox*, where the eruptions are so small, not only the salivation, but also the swelling of the face and hands, is absolutely requisite in order to a proper discharge of the morbific matter; and if either be wanting, or goes off too soon, the patient must perish immediately. But it happens too frequently in this hot distemper, that the texture of the blood is so much weakened and broken, and so highly inflamed by an over-hot regimen, as to be no longer able to perform the expulsion of the inflammatory particles in a slow and gradual manner (not to mention how the mischiefs proceeding from forcing sweat improperly) whence either the face and hands do not swell at all, or the swelling vanishes with the salivation; for though the swelling of the face ought to abate a little on this day, yet it should not go off entirely till a day or two after, the swelling of the hands in the mean while continuing and increasing, which is one of the most certain signs of recovery, as the contrary is of imminent danger. The 11th day most dangerous in the *confluent* kind.

22. However this be, the *saliva*, which till this day continued crude and thin, and was easily Whence the danger.

Sect. 3. expectorated, now becomes so viscid and tough as to endanger suffocation, and when the patient drinks, the liquor falls down the windpipe, whence it is thrown up through the nostrils with a violent cough. He is seized with a hoarseness, a great *stupor* and drowsiness, and being wholly oppressed by the violence of the disease, generally sinks under these symptoms on the above-mentioned day.

A *delirium*, how caused.

23. There are also other symptoms, which happen in any stage of the distemper, and which are equally common in the *distinct* and *confluent* kinds of small pox. For instance, a *delirium* sometimes seizes the patient, occasioned by the excessive ebullition of the blood, and the heat is so intolerable, that he endeavours in a furious manner to get loose from those that confine him in bed. Sometimes the same cause produces a very different or contrary effect, as it seems, namely, a kind of *coma*, so that the patient dozes almost always, unless he be constantly roused.

Whence a *coma*, and purple spots.

24. Sometimes also in this disease, as in the *plague*, the texture of the blood being loosened by the violence of the inflammation, purple spots appear in the spaces between the eruptions, which are generally forerunners of death. This happens oftener when the constitution of the air chiefly favours this epidemic disease. Sometimes small black spots, scarce so large as pins heads, and depressed in the middle, appear on the top of the eruption in different places; which, as they proceed from too much heat, do at length by the use of a cooler regimen acquire a brown, and afterwards by degrees a yellow colour, which naturally belongs to the genuine and regular

small

ſmall pox. This is apparent to thoſe who are acquainted with this diſeaſe, in which all the ſymptoms become proportionably milder, the nearer the eruptions, when come to ſuppuration, reſemble this colour, and *vice verſa.* Chap. 2.

25. *Again, the blood of young perſons,** and ſuch as are in the vigour of life, is ſometimes ſo much inflamed in this diſeaſe, eſpecially if too free an uſe of wine or any other ſpirituous liquor has preceded, as to break through the arteries into the bladder, and ſo occaſion *bloody urine*, which is one of the moſt dangerous ſymptoms that appear throughout the courſe of this diſtemper. Whence bloody urine.

26. Moreover, ſometimes, but not ſo frequently, a ſpitting *of blood* proceeds from the ſame cauſe. But either of theſe hæmorrhages uſually happen in the beginning, before the eruptions appear; or if they ſhew themſelves in ſome places, yet in moſt others they lie concealed under the ſkin, in great abundance, and are of that A ſpitting of blood owing to the ſame cauſe.

* *Again the blood of young perſons, &c.* SYDENHAM conſiders this ſymptom as ariſing from the burſting of the arteries from the force of the blood; and hence a conſequence of inflammatory diatheſis, according to the preſent idea: but this, like all the other hæmorrhages which happen in this complaint, moſt commonly proceeds from the texture of the blood being broken by the putreſcent acrimony; and from its thinneſs ouzing through the ſmall mouths of the excretory veſſels, or tranſuding through the arterial coats into the different cavities. This is a diſtinction neceſſary to be made, as it will influence our modes of cure, which would be very different according to the exiſting cauſe. Beſides, care ſhould be taken to aſcertain that the diſcoloration of the urine ariſes from blood; for, as Dr. Swan juſtly obſerves, red urine has been ſometimes taken for bloody: in order, therefore, to prevent the miſtake, we ſhall obſerve with him, that when the urine has ſtood to ſettle, if blood is mixed along with it, the red particles will congeal and fall to the bottom, leaving the urine clear above. *W.*

Sect. 3. kind which would prove moſt *confluent*, unleſs one of the above-mentioned ſymptoms ſhould terminate the diſeaſe by deſtroying the patient.

When a ſtoppage of urine happens.

27. Sometimes, alſo, eſpecially in young perſons, there happens a total ſuppreſſion of urine, either at the height, or declenſion of the *diſtinct* kind.

The ſymptoms from cold, copious bleeding, and over-purging.

28. There are likewiſe other ſymptoms that ſometimes ariſe from a contrary cauſe to thoſe above enumerated; namely, when the patient has been injured either (1.) by too intenſe cold, (2.) improper bleeding in a very large quantity, or (3.) over-purging; whence the eruptions ſometimes ſuddenly ſink, and a looſeneſs comes on, which, in grown perſons, as we have before obſerved, proves highly dangerous, the *variolous* matter being thereby ſtruck in, ſo that nature is utterly unable to expel it in a proper manner by the pores. Beſides, by this means the ſwelling of the face and hands is checked, which is to be eſteemed as favourable a ſymptom as even the eruptions of the puſtules, unleſs they be very few indeed.

The former rare.

29. But the ſymptoms occaſioned by taking cold are very rare in compariſon of thoſe that ariſe from the hot regimen; for as this diſeaſe may with great reaſon be reckoned amongſt thoſe of the moſt inflammatory kind, a miſtake on this hand happens much more frequently than on the other.

The diſeaſe and inflammation of the blood and juices.

30. *What the eſſence of this diſeaſe is,** I ingenuouſly

* *What the eſſence of this diſeaſe is, &c.* The ſame reaſon which prevents the attainment of knowledge relative to the plague, prevails alſo here, and we can only judge of it from its effects; and in this view it is conſidered as a contagion

nuously own I know not, by reason of a natural defect in the understanding common to me and all mankind; but upon a thorough consideration of the above-mentioned symptoms, it should seem to be an inflammation of the blood and juices, yet of a different kind from other inflammations, in removing which, nature, during the first two or three days, endeavours to concoct and digest the inflamed particles, which being afterwards thrown out on the surface of the body, she further ripens, and at length, totally expels in the form of small abscesses. Hence, in order to lay some foundation for the method of cure, regard must be had to two different stages of this disease; the first whereof is that of the *separation*, and the second that of the *expulsion*. Chap. 2. Has two stages.

31. (1.) The *separation* is mostly accompanied with a febrile ebullition, and is ordinarily finished in *three* or *four* days, during which nature is employed in collecting the inflamed particles (1.) The separation.

tagion of a specific nature, producing always an eruptive fever, varying in its type according to the peculiar predisposition of the habit, or some accidental circumstances operating upon the constitution, and hence its varieties. For though some have thought that the difference of the disease depended upon the different nature of the contagious miasmata, we have every reason to think no real difference exists; for people inoculated with the same matter have been known, some to have the distinct, others the confluent species of the small pox. From hence it appears conclusive, that deviations in the contagious particles are not necessary to produce the different diseases; and that they only differ in point of appearances: and these chiefly consist in the "period of the eruption, in the number of pustules pro- "duced, in the form of the pustules, in the state of the "matter contained in them, in the continuance of the fever, "and, lastly, in the danger of the disease."—Cullen. *W.*

Sect. 3. together that vitiate the blood, and expelling them to the fleshy parts, which being over, the former calm returns; the disturbance raised in the blood, whilst this was doing, being now quieted. The separation being thus finished by means of the ebullition of the blood, (2.) the *expulsion* succeeds next, which is performed, during the rest of the time the disease continues, by means of those small abscesses in the flesh. For as they differ not in their nature from other abscesses, so, like those, they usually run through the states of crudity, suppuration, and exsiccation, which, if they finish right, there is no danger, as the cure chiefly depends thereon; but if not, very sad symptoms will succeed. And, indeed, the expulsion requires so much longer time than the separation, because *this* is performed in a thin fluid body, and, as I may say, in the bosom of nature, whereas *that* is performed in a thick, dense substance, and at a greater distance from the fountain of life.

(2.) The expulsion.

The Indications.

32. These particles being premised, *the indications that arise are*; * (1.) that such an equable ebullition of the blood be maintained, that it may neither finish the separation too hastily, by rising too high, nor retard, or render it imperfect, by sinking too low; (2.) that the abscesses, or eruptions be very carefully kept up,

* *The indications of cure are, &c.* These will be according to the nature of the concomitant fever, for it is upon the proper management of that the success of our endeavours must arise; whether it be of an inflammatory nature, or has a tendency to the nervous or putrescent species. Inoculation has taught us the best modes of conducting ourselves in this disease, and the same treatment is necessary in the *small pox* arising from infection, as in that where the variolous matter has been thrown into the habit by art, *W.*

so

so that, running through their proper ſtates, they may at length entirely diſcharge the matter they contain, and vaniſh. Chap. 2.

33. (1.) To treat therefore briefly of the firſt indication. Great caution is required, eſpecially during the ſeparation, *that the ebullition may not riſe too high, either by heaping too many clothes on the patient, overheating the air, by keeping too large a fire in the room, or uſing heating medicines and cardiacs.** And theſe muſt be particularly guarded Method of anſwering the firſt indication.

* *That the ebullition may not riſe too high, &c.* The world is infinitely obliged to our author for laying the foundation for the introduction of the cool regimen; and to Mead, Friend, and Jurin, for adopting this method, and by their unwearied endeavours in exploding the heat and method.—At preſent on the firſt attack of the *ſmall pox*, where circumſtances point out that the diſturbance in the ſyſtem ariſes from that cauſe, which may be known from the diſeaſe being epidemic and the perſon not having had the *ſmall pox* before, being expoſed to the infection, and ſeized with ſymptoms of fever, he is, as in inoculation, to be freely expoſed to the cool air, to be purged, and to have cooling acids given liberally: if theſe fail in moderating the fever ſufficiently, ſome blood may be taken from the patient, more eſpecially if he be an adult, of a plethoric habit, and accuſtomed to full living; a vomit, under the ſame circumſtances ſhould be adminiſtered, as is uſeful in the commencement of all fevers, and particularly in this, where a determination to the ſtomach appears from pain and ſpontaneous vomiting.

During the eruptive fever, it frequently happens, eſpecially in infants, that convulſions occur. If one or two fits only appear on the evening preceding the eruption, they give a favourable prognoſtic of a mild diſeaſe, and require no remedy; but if they come on at a more early period, be violent, and frequently repeated, they are very dangerous, and aſk for ſpeedy relief: here an opiate given in a large doſe is found the moſt effectual.

But notwithſtanding theſe means, if upon the eruption the pimples on the face ſhould be very numerous; not diſtinct,

Sect. 3. guarded againſt, if either the patient be in the prime of life, or his blood too much enriched by ſpirituous liquors, or it be the ſpring ſeaſon, or,

tinct, and particularly when, upon the fifth day, the fever does not ſuffer a conſiderable remiſſion, but after the eruption ſhall continue, avoiding heat, and continuing to expoſe the body to cool air, will ſtill be proper. If the fever be ſtill conſiderable, with a full and hard pulſe, in an adult, a bleeding will be neceſſary and more certainly a cooling purgative. It is ſeldom proper to repeat the bleeding, as a loſs of ſtrength uſually comes on very ſoon, but the repetition of the purgative, or the frequent uſe of laxative glyſters is commonly uſeful.

When debility, with other marks of a putreſcent tendency of the fluids, appears, it will be neceſſary to exhibit the Peruvian bark copiouſly in ſubſtance. In the ſame caſe the free uſe of acids, and of nitre is beneficial, and it is commonly proper to give wine liberally.

From the fifth day of the diſeaſe onward through its whole courſe, it is right to give an opiate twice a day, taking care at the ſame time, to obviate coſtiveneſs by purgatives, or laxative glyſters.

From the eighth day to the eleventh, in a violent diſeaſe it is proper to lay on bliſters ſucceſſively on different parts of the body, and that without regard to the parts being covered with puſtules.

Should the tumour on the fauces be conſiderable; the deglutition troubleſome, the ſaliva, and mucus viſcid, and with difficulty thrown out, it will be proper to apply bliſters to the external fauces, and to employ diligently detergent gargles. The frequent exhibition of antimonials in nauſeating doſes has been found uſeful during the whole courſe of the diſeaſe, when any conſiderable fever is preſent. After the ſuppuration is finiſhed, the fever is ſometimes continued, and increaſed, or, as ſometimes, when, after there has been little or no fever before, a fever now ariſes, and continues with conſiderable danger; this is called the SECONDARY FEVER, and requires particular treatment; when this fever follows the diſtinct *ſmall pox*, and the pulſe is full and hard, the caſe is to be treated as an inflammatory affection by bleeding, and purging. But if it ſucceeds the confluent kind and be a continuance or exacerbation of the fever

or, at leaſt, only the beginning of ſummer. Otherwiſe the ſeparation, which ſhould be carried on ſlowly and gradually, for the better promoting an univerſal deſpumation, will by this means be hurried on too faſt, and thus either there will not be a ſufficient number of particles collected, or perhaps ſome particles may be brought to ſecretion, which nature would not otherwiſe have ſecreted, were it not that, being forced beyond her juſt limits, ſhe is thus made to hurt herſelf. For when ſuch particles are ſeparated as are unfit for ſeparation, the motion of *others*, that have a tendency thereto, is hindered by their mixing with theſe, and thus they are rendered leſs fit for expulſion. Chap. 2.

The ſeparation is not to be too much promoted.

34. To me, indeed, it ſeems agreeable to reaſon, that the more time nature employs in carrying on and finiſhing the ſeparation, provided the ebullition does not quite flag, ſo much the more certainly and univerſally it is completed, upon which the ſucceſs of the ſubſequent cure muſt needs principally depend, as a different event muſt manifeſtly enſue from the contrary method. For as over-early fruit does not come to perfection, ſo no good ariſes from this hot regimen, but on the contrary it frequently happens that the patient either falls immediately into a *delirium*, or, which is a worſe ſymptom,

Ill effects of this procedure.

ver which had ſubſiſted before, it is to be conſidered of the putrid ſort, ſome purging may be neceſſary, but the remedies to be chiefly depended upon, are the Peruvian bark, and acids. But after whichever ſpecies of the *ſmall pox* the ſecondary fever appears, it will be uſeful to exhibit an antimonial emetic in nauſeating doſes, but in ſuch a manner as to produce ſome vomiting. See Cullen's *Practice of Phyſic*, vol. ii. pag. 162, ſect. 617, &c. *W.*

profuſe

Sect. 3. profuſe ſweats ariſe, whereby ſuch particles are ſeparated as are unfit for ſeparation, and not agreeable to the nature of *pus*, (which however is the genuine product of this ſeparation) or elſe, the eruptions, being driven out too much by cardiacs and hot regimen, run altogether (a ſhocking ſight) and forebode death.

35. Theſe and the like ſymptoms are ordinarily occaſioned by ſuch errors, whereas I never obſerved any harm done by the other method: for nature, being left to herſelf, finiſhes her work in her own time, ſeparating and expelling the *variolous* matter, in the proper way and manner, ſo as not to ſtand in need of our help, at leaſt not in the young and robuſt. Nor in reality have I ever obſerved or heard that any perſon periſhed becauſe the *ſmall pox* did not come out at firſt; but too many have died in whom they came out well and hopefully in the beginning, *but afterwards ſtruck in and ſunk* * before they came to maturity.

Danger of diminiſhing the ebullition too much.

39. But though it is improper and dangerous, by cardiacs or a hot regimen, to raiſe the ebullition, once begun, too high; ſo contrariwiſe the danger is equal in depreſſing it by bleeding, vomits, purgatives, glyſters, and the like evacuations, the due ſecretion of the ſeparable parts

* *But afterwards ſtruck in and ſunk, &c.* This is certainly the moſt common caſe: but the former has ſometimes happened, experience evinces, where eruptions are ſeen lurking under the ſkin, and do not come freely out, the conſtitution of the patient is particularly to be attended to. If the re-action of the ſyſtem is violent, bleeding and the mode above preſcribed will anſwer our purpoſe; but ſhould it be too languid, recourſe muſt be had to gentle cordials, ſuch as will accelerate the motion of the fluids, by giving a proper ſtimulus to the vaſcular and nervous ſyſtem. *W.*

being

being in great measure prevented hereby. For though the common and trite objection to bleeding and other evacuations be of no force, namely, that *it is improper to move the humours from the circumference to the center, as nature seems to affect the contrary in this disease*, because a quite different effect has often been observed to follow upon the use of these means, *viz.* a sudden eruption of the *small pox*; nevertheless there are other forcible reasons in readiness to dissuade from this practice, if by any means it can be refrained. For, to treat briefly of the principal of them; (1.) by these evacuations, not only the ebullition is too much diminished, by means of which the parts intended for despumation should have been carefully separated; but (2.) the matter also is wasted, which should continually serve as fuel to the secretion once begun, whence it frequently happens that the eruptions, which came out kindly in the beginning, and perhaps so much the better from the previous use of the above-mentioned evacuations, sink soon after, as if they were suddenly struck in; occasioned chiefly by want of a fresh supply of matter to succeed the former, and finish the separation. But notwithstanding what has been advanced, if there be the least suspicion that the *small pox*, which are coming out, will be of the *confluent* kind, it will be highly serviceable not only to bleed immediately, but likewise to give a vomit; for reasons we shall, in another place, set down at large. Chap. 2. Bleeding and vomiting excellent in the *confluent small pox.*

37. (2.) To proceed now to the second indication, which respects the time of expulsion; during which the separated matter is expelled by means of small abscesses, or pustules. Here The second indication, how to be answered.

we

Sect. 3.

we are to endeavour to keep them up in a proper manner, ſo as they may duly and regularly reach the period aſſigned them.

Danger of over-heating the patient towards the beginning of the expulſion.

38. As I conceive, therefore, it has been clearly ſhewn that it is highly dangerous to keep the patient too hot during the time of ſeparation, when there is a fever, and the eruptions ſcarce yet appear; ſo likewiſe an error of this kind is equally dangerous at any time of the diſeaſe, and eſpecially towards the beginning of the expulſion, whilſt the puſtules are yet in a ſtate of crudity. For though the blood be conſiderably freed from the inteſtine tumult, by the ſeparation being finiſhed, and the tranſlation of the matter to the fleſhy parts, yet being ſtill weak, and having ſcarcely acquired a new ſtate and texture, it is eaſily affected by the immoderate heat ariſing from all parts, and ſo, upon the leaſt occaſion given, inflames with a tendency to a new ebullition; which does not, like the former, endeavour to promote ſeparation, for we ſuppoſe that buſineſs over; but, inſtead thereof, not only produces the dangerous ſymptoms before mentioned, but diſturbs the eruption begun, and proves detrimental, by putting the contents of the puſtules into violent motion. And by theſe means either the particles already ſecreted, and depoſited in the habit, being hurried away by the violent and rapid motion of the blood, are abſorbed thereby; or the fleſhy parts, being heated beyond the degree requiſite for ſuppuration, do not finiſh it ſo completely; or laſtly, perhaps, upon the coming of this new diſorder, the texture of the blood, and the tone of the fleſhy parts are ſo broken and weakened, that they cannot overcome the matter

matter expelled, and digeſt it in the uſual way of abſceſſes. Chap. 2.

39. But mean while, we muſt not be ſo intent upon preventing an immoderate ebullition of the blood, as to check the eruption of the puſtules, *by expoſing the patient to the injuries of the cold.** The fitteſt degree of heat to promote their expulſion is the natural one, and ſuch as is ſuitable to the temper of the fleſhy parts; and whatever exceeds or falls ſhort of it, is dangerous on either hand. The eruption not to be checked.

40. From what has been delivered, therefore, it ſeems manifeſt that this diſeaſe, and the proper method of curing it, reſt on a ſlippery foundation; and for this reaſon I dare venture to aſſert, that the reputation of the phyſician, who is frequently employed in it, will be expoſed to cenſure; for not only the vulgar are apt to attribute the cauſe of the patient's death to the over officiouſneſs of the phyſician, but even the profeſſors of the ſame art gladly take occaſion from thence to defame their brother, and haranguing before partial judges, eaſily get him condemned, with this view, that they may gain greater eſteem themſelves, and build their riſe upon the ruin of others; which is a practice utterly unbecoming men of letters, and even the meaneſt artiſans, and who have any regard for probity. The method of curing this diſeaſe precarious.

* *By expoſing the patients to the injuries of the cold, &c.* In the eruptive ſtate of the diſeaſe, though expoſing the patients to cool air has been obſerved to be very ſerviceable, and avoiding great degrees of heat; ſtill it cannot be adviſeable to ſuffer ſuch an expoſure in inclement weather, where the cold is intenſe; moderate degrees may always be admitted, ſuch as are ſevere ought to be prohibited for very obvious reaſons. *W.*

Again,

Sect. 3. Again, we may from hence obſerve, which is leſs ſurpriſing, that nurſes, who are generally too buſy and officious, often ſucceed ill in treating the diſeaſe: for it is a difficult matter, and exceeds the underſtanding and abilities of ignorant women, to aſcertain the degree of heat requiſite in this caſe, eſpecially, ſince in order thereto the ſeaſon of the year, the age of the patient, his manner of living, and other like circumſtances muſt be conſidered together, which in reality demands a prudent and ſkilful phyſician.

Cardiacs, when and how to be given.

41. *If the puſtules happen to ſtrike in,** or the ſwelling of the face and hands ſink, either from unſeaſonable bleeding, or taking cold, recourſe muſt be had to cardiacs, but we muſt be careful of giving them too freely. For though blood has been taken away, it may notwithſtanding happen, that apprehending the loſs of ſtrength from thence, and therefore giving either ſtrong cordials, or uſing them frequently to prevent it, a new ebullition will be ſuddenly raiſed, the blood being yet weak, and eaſily affected by a hot *ſtimulus*; whence frequent ebullitions are excited therein, to which the death of the patient is rather to be aſcribed, than to the preceding bleeding. And let this ſuffice with reſpect to

* *If the puſtules happen to ſtrike in, &c.* Beſides the cauſes here ſet down, there are others which are productive of ſimilar effects, and are ſuch as generally induce a weakened action of the nervous power — as decay of ſtrength; fatigue; terror; too copious evacuations, &c.—Bliſtering in this caſe is eſſentially neceſſary, and the prudent uſe of cordials, particularly wine; and theſe ſhould be exhibited in ſuch a manner as to render them quickly efficacious; for we muſt endeavour to promote the re-eruption of the puſtules with all poſſible expedition. *W.*

ſuch

such particulars as may answer the primary intentions. Chap. 2.

42. Now, to come closer to practice: as soon as the signs of the disease appear, I confine the patient within doors, forbid the use of wine and flesh-meats, and allow *small beer** moderately warm with a toast for common drink, and sometimes suffer it to be drank at pleasure. *For his food I direct water-gruel,* † barley-gruel, roast The treatment of this disease particularized.

* *Small beer, &c.* Small beer appears not to be the most eligible liquid for common drink, for it is apt to be too new, and tends to move the bowels too much; if, therefore, as Dr. Swan observes, there should be a looseness, or any tendency thereto, it ought be refrained: in this case rice water, hartshorn drink, and such like, would more properly supply its place—and if it is capable of being kept till it is old, it is generally too strong, and would be disposed to increase the inflammatory symptoms. *W.*

† *For his food I direct water gruel, &c.* With regard to diet, says Dr. *Mead*, it ought to be very slender, moistening, and cooling; such as *oatmeal*, or *barley gruel*, &c. Nevertheless as the food is to be adapted to the several stages of the disease, the best regimen in the beginning is that, which will keep the body open, and promote urine. These advantages are obtained by boiling preserved fruits with their food, especially *figs*, *damascene plums*, and *tamarinds*; and giving them subacid liquors for drink; *whey turned with apples boiled in the milk, or with wine*; *emulsions made with barley water and almonds*; *Moselle or Rhenish wine plentifully diluted with water*; or any other things of this kind.—When this sort of diet did not keep the body open, the *Arabian* physicians added *manna* to it; but this they did sparingly, and with caution; *for it is quite necessary*, says *Avicen*, *that the body be opened at the beginning*;* which is one of the most important advices that can be given in this disease, if to it be added, that urine must be made plentifully. For there is a wonderful correspondence between the skin and the kidneys; whereby whatever fluid is wont to be secreted by the cuticular glands, may with great ease be evacuated by the

* De variolis & morbillis.

Sect. 3. roaſt apples, and other kinds of aliment, that are neither remarkably heating, nor cooling, nor hard to digeſt. Nor do I much diſapprove of the common country fare, of milk with roaſt apples bruiſed in it, provided it be given warm, and ſparingly. I immediately forbid a hotter regimen, and the uſe of all kinds of cardiacs, whereby ſome injudiciouſly endeavour to force out the ſmall pox before the *fourth* day, which is the natural and proper time for the eruption; for I am very ſure that the flower the puſtules come out, the more general the ſeparation of the variolous matter will be, the better they will ripen, and the leſs danger there will be of their ſtriking in; whereas if they be driven out too ſoon, the matter, being yet crude and indigeſted, is precipitated, and deceives our expectation, like over-early fruit.

Miſchief of forcing out the puſtules before the *fourth* day.

43. Again, by this over-haſty procedure, there is great danger (eſpecially in hot and florid conſtitutions, whoſe active principles more than ſufficiently ſupply the place of cardiacs) left nature, being too much irritated and hurried, ſhould overſpread the body with the *ſmall pox*, and ſo render that the *confluent* kind, which, without this precipitancy, would have been a favourable *diſtinct* one. The ſmall pox muſt not therefore be expelled upon the firſt ſuſpicion of this diſeaſe, becauſe the patient is generally very ſick and reſtleſs before the eruption; for not a

urinary paſſages. Wherefore it is very proper to draw off as much of the matter of the diſeaſe as can be done, by theſe paſſages, in order to prevent the overloading of the internal parts.—Stack's *Tranſlation of the Doctor's Diſcourſe on the Small Pox*, pag. 35.

Chap. 2.

ſingle inſtance can be produced of its having proved mortal, however ill the patient has been, either becauſe the puſtules did not come out directly, or becauſe nature was deficient in expelling them ſooner or later, unleſs where ſhe was prevented by an hot regimen, and an over-early uſe of cardiacs. For I have more than once obſerved in the young and ſanguine, that the uſe of a hot regimen, and cardiacs given with deſign to expel the puſtules before the due time, have ſo little promoted their eruption, that, on the contrary, they have proved a check thereto. For the blood being heated by theſe means, and put into a more violent motion than is requiſite for performing the ſeparation in a proper manner, only ſome certain ſigns of the diſeaſe diſcover themſelves; the eruptions in the mean time lying concealed under the ſkin, and not riſing higher, whatever cordials be adminiſtered to promote their elevation; till, at length, the blood being reduced to its moderate and proper temperature, by allowing the uſe of ſmall beer, and taking away part of the clothes whereby the patient was conſiderably heated, I have commodiouſly made way for the eruption of the puſtules, and by theſe means removed the danger.

44. And, in my opinion, they have as little reaſon on their ſide, *who ſo obſtinately confine the patient in bed*,* provided he keeps his room, as thoſe

Ill effect of confining the patient in bed before the *fourth* day.

* *Who ſo obſtinately confine their patient in bed, &c.* Mead adviſes keeping the patient in bed during the firſt days of the diſtemper; for which experience convinces us there is not the leaſt neceſſity; but the contrary—for keeping the patient cool, and giving him cool drink, leſſens the violence

Sect. 3. thoſe who give cordials in ſo haſty and improper a manner: for *bloody urine*, *purple ſpots*, and other mortal ſymptoms above ſpecified, happen only from a too-early confinement in bed, eſpecially in young perſons. But on the *fourth* day I order the patient to be put to bed, at which time, if the eruption does not come kindly forward, it is proper to give ſome gentle cardiac, at leaſt once, to drive out the puſtules. Amongſt the medicines that produce this effect, *thoſe called paregorics, or opiates,** ſuch as *liquid laudanum*, *diaſcordium*, &c. given in a ſmall quantity, mixed with ſome proper *cordial water*, are the beſt for this purpoſe; for as they abate the ebullition of the blood, nature expels the morbific matter with greater eaſe and convenience. But I would not adviſe the giving a cardiac before this juncture, even though there be a looſeneſs, and that ſhould ſeem to indicate ſuch a remedy. For though, as we obſerved above, a

Opiates beſt to promote the eruption.

Not to be given before the *fourth* day.

of febrile affection, by lowering the inflammatory ſtate of the ſyſtem, and more particularly of the ſkin; whereas heat contributes to increaſe both, and occaſions a more copious eruption of the puſtules. And it is on all hands acknowledged that the means made uſe of for moderating the general, and local inflammation here ſpecified, to be the greateſt improvements which have been made in the practice of inoculation, amongſt which the expoſure to cool air, and giving cold drink are conſidered as the foremoſt. *W.*

* *Thoſe called paregorics, or opiates, &c.* Though opiates are here conſidered as cardiacs, we cannot properly conclude that they produce their good effects from acting ſimilar to medicines of that claſs, it is more probable they, by exerting their ſedative power, contribute to take off the ſpaſms from the extreme veſſels of the ſkin, and thus by permitting a free efflux of the blood and humours there, aſſiſt in the expulſion of the morbific matter, by taking off the affection which conduces to prevent it. *W.*

looſeneſs

looſeneſs may ſometimes precede the eruption of the *confluent ſmall pox*, occaſioned by inflammatory *effluvia*, or humour diſcharged into the inteſtines from the maſs of blood, which during the firſt days of the illneſs is greatly heated, and in violent motion; yet nature will as certainly expel theſe *effluvia* of the variolous matter by the ſkin, whereupon the looſeneſs goes off ſpontaneouſly, as ſhe commonly does the ſame *effluvia*, which, being turned inward upon the ſtomach, occaſion a vomiting in the beginning of the diſeaſe. Chap. 2.

45. But it is to be obſerved, that *if I am called to a ſtrong young man*,* who, beſides, has given occaſion to the diſtemper by too free an uſe Bleeding, when requiſite.

* *If I am called to a ſtrong young man, &c.* A full and ſtrong pulſe, a redneſs of the face, a pain and heavineſs in the head and loins, a ſwelling of the veins, youthfulneſs, a ſprightly diſpoſition, a cuſtom of bleeding, and the ſuppreſſion of a critical evacuation, indicate bleeding the firſt or ſecond day. Thus the anxiety, and oppreſſion of the breaſt ſoon vaniſh, the ſpots appear copiouſly in the ſkin, nor is there reaſon to apprehend ſuch violent ſymptoms after the eruption. For an over-fulneſs of blood has often been obſerved to hinder the due propulſion of the *variolous* matter to the external parts, and occaſion the puſtules to appear openly diſtinct; whilſt the matter left in the habit produces various ſpaſmodic, convulſive ſymptoms, a *delirium*, a ſuffocation, and even an apoplexy, towards the declenſion of the diſeaſe. But where the pulſe is hard, low and ſmall, the veſſels leſs turgid, the ſtrength languid, the conſtitution phlegmatic, the patient a child, or a youth, the body corpulent, a vomiting, cough, and looſeneſs happen in the beginning of the illneſs, the patient ſubject to faint upon bleeding, a vein muſt not be opened, leſt by taking away too much blood, the matter ſhould be detained in the body, and the eruption prolonged for ſeveral days, not without danger.—Hoff. *Med. ration. ſyſtem.* tom. iv. pag. 154, 155.

It is agreed on all hands, that this remedy is not very ſuitable to the tendereſt age. But yet, as the blood of infants is

Sect. 3. uſe of wine, or any other ſpirituous liquors, I eſteem it not enough to check the ebullition of the blood, for him to keep from bed, and refrain cordials, unleſs bleeding in the arm be alſo uſed: but if this be oppoſed, *on account of the prevailing prejudice of the vulgar,** at leaſt I

generally too thick, and too much in quantity for the bulk of the body; and as they are often ſeized with convulſions, upon the appearance of the diſeaſe, ſome evacuation ought to be made; which may be ſafely affected by leeches applied to the temples, or behind the ears. Likewiſe, if blood cannot be drawn from the arm, in moſt young ſubjects either of the jugulars may be opened without inconvenience.—That regard is to be had to the patient's ſtrength, or what age ſoever, is manifeſt to all. But the weakneſs is ſeldom ſo great, as not to bear ſome loſs of blood, unleſs it be after ſome extraordinary evacuations. Nor is the pulſe to be over much depended on in this caſe; for it often happens that the thickneſs of the blood prevents the ſecretion of the uſual quantity of animal ſpirits in the brain, and that the vital fluids is not propelled from the heart with due force; in which caſe, by removing the oppreſſion, the patient's ſtrength is obſerved even to increaſe with the bleeding.—But in what proportion blood is to be taken away, will be beſt determined by the vehemence of the diſeaſe.—Stack's *Tranſlation of the Doctor's Diſcourſe on the Small Pox*, pag. 36, &c.

* *On account of the prevailing prejudice of the vulgar, &c.* Long continued cuſtom is difficult to conquer, and particularly with the vulgar, when they have imbibed notions eaſy to be comprehended; which was the caſe in SYDENHAM's time; he had to militate againſt an old eſtabliſhed theory, which warranted the attempt of throwing out the morbid matter by ſuch medicines and applications as they conſidered increaſed the expulſive power of the habit. And it was much eaſier to conceive this might be done by adding force to the conſtitution, and accelerating the circulation by heating ſtimulants, &c. than by means which appeared calculated to lower thoſe powers: hence aroſe the difficulty he complains of — but long experience has conquered thoſe prejudices, and principles diametrically oppoſite govern the preſent practice. *W.*

judge

judge it incumbent on me to propoſe it. For by the inflammation of the blood, cauſed by the heat of the ſpirituous liquors, together with the intenſe heat that naturally accompanies this diſeaſe, the motion thereof is rendered ſo violent, that it frequently burſts through the veſſels into the bladder, or occaſions purple ſpots, and other like ſymptoms, which perplex the phyſician in the courſe of the diſtemper, and deſtroy the patient. — And let theſe rules ſuffice with reſpect to what is to be done before the eruption. Chap. 2.

46. As ſoon as the puſtules appear, I examine carefully whether they are of the *diſtinct* or *confluent* kind; as they differ extremely from each other, though both have ſome ſymptoms in common. If therefore from the largeneſs, paucity, and ſlow eruption of the puſtules, the ceaſing of the ſickneſs, and other violent ſymptoms, which in the *confluent* ſpecies continue after the eruption, they appear to be of the *diſtinct* kind, I order the patient to be refreſhed with ſmall beer, water gruel, barley water, *&c.* in the manner above directed. And if it be ſummer, the weather exceeding hot, and the puſtules few, I ſee no reaſon why the patient ſhould be kept ſtifled in bed; but rather that he may riſe and ſit up a few hours every day, provided the injuries ariſing from the extremes of heat or cold be prevented, both with reſpect to the place wherein he lies, and his manner of clothing. For when the patient ſits up between whiles, the diſtemper finiſhes its courſe with greater eaſe, and alſo more expeditiouſly, than if he had been conſtantly kept in bed, which not only prolongs the illneſs, but likewiſe promotes

What is to be done in the *diſtinct* kind.

Advantages of keeping from bed.

Sect. 3. motes the febrile heat, and occaſions a painful inflammation upon the riſing of the puſtules. But if the coldneſs of the ſeaſon, or a numerous eruption, makes it neceſſary for the patient to keep his bed conſtantly, I take care to prevent his lying warmer, or with more clothes on him, than he uſed to do whilſt in health; and that only a moderate fire be made in the room morning and night, unleſs it be the winter ſeaſon.

Promoting ſweat, bad. Neither do I require he ſhould lie always in the ſame place in bed, leſt a ſweat be raiſed, which I abſolutely maintain (ſupported both by the reaſons above alledged, and by experience) cannot be promoted without conſiderable danger.

Warm *Canary* to be given in the declenſion. 47. In the declenſion of the illneſs, when the free exhalation of the *effluvia* proceeding from the *matter*, now changed into *pus*, is prevented by the hardneſs and dryneſs of the puſtules, it will be proper to give five or ſix ſpoonfuls of *canary*, warm, or ſome other mild cardiac, *leſt theſe putrid effluvia return again* * into the blood. And in reality at this time, and not before, cardiacs and a warmer and more cordial diet may be allowed; as ſugar ſops, oatmeal caudle, *&c.*. Nor will any thing farther be needful in the kindly *diſtinct* ſort, provided the patient will conform to this temperate method and diet; unleſs perhaps reſtleſſneſs, watchings, or other ſymp-

* *Leſt theſe putrid effluvia return again, &c.* To prevent the contents of the puſtules in a ſtate of ſuppuration from entering into the veſſels, *Boerhaave* alſo obſerves that there is not a nobler remedy than *Canary* wine, drank moderately, *e. gr.* to the quantity of an ounce, three or four times a day. Opium may be given ſparingly, to check the violent motion of the blood and juices. "If theſe avail not," he adds, "I know not what will relieve." *Prax. Med.* vol. v. pag. 309.

toms,

toms, threatening a *delirium*, ſhould occaſionally require an opiate. Chap. 2.

48. This is the true and genuine method of treating this kind of ſmall pox, and will prevail after my deceaſe, notwithſtanding the ill-grounded prejudices of thoſe that oppoſe it. And though I do not deny that abundance have recovered by a contrary treatment, yet it muſt alſo be acknowledged (and is deſervedly to be lamented, if it be conſidered that this *diſtinct* kind is not at all dangerous in its own nature) that numbers have died, and that many more would have periſhed, unleſs they had been ſaved by the cold ſeaſon in which the diſeaſe happens, or by bleeding not long before, which is otherwiſe unneceſſary and uſeleſs. For this reaſon, therefore, if either through the obſtinacy of the friends, or the diffidence of the patient, the preceding regimen be oppoſed, I eſteem it ſafeſt to bleed, which, indeed, though it is in its own nature prejudicial in this kind of ſmall pox, inaſmuch as it diſturbs the ſeparation, and leſſens the ſupplies intended to keep up the eruptions and ſwelling, yet it makes ſome little amends for the injuries of the ſubſequent hot regimen, and therefore renders this method, which I would not uſe, unleſs compelled thereto, leſs dangerous. Bleeding ſometimes neceſſary.

49. From what has been ſaid, it will be eaſy to ſolve the common difficulty; viz. *whence it happens that ſo few of the poorer ſort die in this diſeaſe, in compariſon of the rich that are deſtroyed thereby*; for which indeed ſcarce any other cauſe can be aſſigned, than that by reaſon of the narrowneſs of their circumſtances, and ordinary way of living, they have not the means of injuring Why more rich perſons die than poor.

Sect. 3. juring themſelves, as the rich have, by a more elegant diet. But this diſeaſe has proved fatal to abundance more of the common people, ſince they knew the manner of uſing *mithridate*, *diaſcordium*, *hartſhorn drink*, &c. than it uſually did in the leſs learned, but more prudent ages: for at preſent there is ſcarce an houſe without ſome illiterate, preſuming woman, who, to the deſtruction of mankind, practiſes an art ſhe never learnt.—And let this ſuffice with reſpect to the cure of the *diſtinct ſmall pox*.

Difference between the *diſtinct* and *confluent ſmall pox*.

50. But in the *confluent ſmall pox* there is great danger; for I judge this kind differs as much from the other, as the *plague* does from this, though the vulgar, who admit names and words for things, hold the cure of both to be the ſame. In this kind of diſeaſe, as it proceeds from a greater inflammation of blood, more caution is required not to heat the patient; as we obſerved above, in treating of the former ſort. But though this kind naturally demands greater cooling than the other, yet, in order to promote the ſwelling of the face and hands, (without which death muſt enſue) and the elevation and increaſe of the eruptions, and likewiſe becauſe the patient, on account of the painful ulcerations, cannot ſit up, it is proper he ſhould keep his body, and even his hands, in bed, provided he be lightly covered, and allowed to turn himſelf therein as he pleaſes; as we before intimated in treating of the *diſtinct* ſort. And in the declenſion of the diſtemper, upon the approach of the *ſuppurative fever*, he muſt not only be allowed this liberty, but admoniſhed to make uſe of it, and muſt be turned often night and day, to moderate the exceſſive heat,

Neceſſity of keeping in bed in the *confluent* kind.

heat, and prevent ſweat, by which the ſoft humour is diſcharged, wherewith the *ſmall pox* ſhould be diluted, to render them mild. Chap. 2.

51. Since, therefore, as we remarked above, a ſpitting conſtantly accompanies this kind of ſmall pox, which, as it is one of nature's principal evacuations, and is here ſubſtituted inſtead of that which ſhould have been made by puſtules (for the evacuation by puſtules does not go on ſo well in this low and flat ſort, as in the other) we muſt diligently endeavour to keep it at its height, and prevent its ſtopping too ſoon, either from the uſe of heating remedies, or by forbidding the free uſe of ſmall beer, or ſome ſuch liquor. Now as the ſpitting, in its natural order, is to begin as ſoon as the eruptions appear, and abate on the *eleventh* day, but not vaniſh entirely till a day or two after; ſo if it goes quite off before that day, there is danger. For as the ſwelling of the face, whereby ſome part of the morbific matter is evacuated, always vaniſhes on that day, if the ſalivation ſtops at the ſame time, the patient is infected by the variolous matter, now become corrupt, as by a poiſon; and there being no way left for it to paſs off, the danger is imminent, unleſs perhaps, as it ſometimes happens, the ſwelling of the hands (which as it comes on later than that of the face, ſo it goes away more ſlowly) be ſo conſiderable as to ſnatch the patient from impending death. The ſalivation, which is ſo very advantageous and neceſſary here, may be much promoted by drinking freely of ſmall beer, or ſome other liquor that neither heats, nor excites ſweat.

The ſpitting here to be kept up.

How promoted.

52. But

Sect. 3.

52. But beſides theſe, in order to check the violent ebullition of the blood, in which this ſort of ſmall pox greatly exceeds the *diſtinct* kind, and to keep up the ſpitting (the neceſſary evacuation in this diſeaſe) opiates are more proper than any other remedies; and though by their incraſſating quality they may ſeem in ſome meaſure to hinder the expectoration, yet I have long ſhaken off that prejudice, and given them in this diſeaſe with great ſucceſs, provided the patient was above *fourteen*. For as the blood of infants and children, who generally ſleep tolerably well throughout the courſe of this diſeaſe, ferments more gently, it ſtands leſs in need of ſuch a check; and, moreover, by the uſe of this kind of remedy, the looſeneſs, which nature appoints to be an evacuation for children in this kind of diſeaſe, is ſtopt, to the detriment of the patient.

Opiates excellent for this purpoſe.

53. But in grown perſons the frequent uſe of opiates is attended with the following advantages: (1.) by procuring moderate reſt they abate the violent ebullition of the blood, and of courſe prevent a *delirium*; (2.) they promote the ſwelling of the face and hands in a better manner, which is a very conſiderable natural evacuation in this diſeaſe; (3.) they keep up and prolong the ſwelling to its proper natural period; which greatly contributes to the patient's ſafety, as the ſwelling of the face often falls before, to the endangering the patient; for the heat of the blood being abated, the inflammatory rays are brought in due time to the hands, face, and the whole ſurface of the body, according to

Good effects of them in grown perſons.

to the nature of the diſeaſe; (4.) they pro- Chap. 2.
mote the ſalivation, which though it may be
ſtopt in ſome ſubjects for a few hours, by means of ſo powerful an incraſſating medicine, yet the ſtrength being increaſed by theſe new helps, nature reſumes freſh vigour, and happily finiſhes the work begun; (5.) moreover, I have obſerved that the ſpitting, which uſually abates about the *eleventh* day, and ſometimes earlier, to the great detriment of the patient, by giving opiates a few times has been raiſed anew, and not ceaſed before the fourteenth day, and ſometimes later. I uſually give about fourteen drops of *liquid laudanum*, or an ounce of ſyrup of white poppies, in a little *cowſlip-flower water*, or ſome ſuch diſtilled water; and if either of theſe medicines be given to grown perſons every night after the eruption is over, to the end of the diſeaſe, not only no inconvenience, but great ſervice will thence accrue to them, as I have frequently experienced. But I judge it proper to exhibit an opiate a little earlier than is otherwiſe uſually done; for it is eaſy to be obſerved in the worſt kind of *ſmall pox*, that a hot fit, attended with reſtleſſneſs, anxiety, and other ſymptoms, generally comes on in the evening, which may in ſome meaſure be prevented by adminiſtering an opiate at ſix or ſeven at night.

When beſt given.

54. In the next place, ſince a *looſeneſs* as certainly accompanies the *confluent ſmall pox* in children, as a *ſalivation* does the ſame in grown perſons: nature, as we obſerved above, conſtantly providing one of theſe evacuations to expel the morbific matter; ſo I take care *by no means to check*

Danger of checking the *looſeneſs* here in children.

Sect. 3. *check this looſeneſs,** any more than the ſalivation, both being alike improper. And the unſeaſonable endeavours of ſome imprudent women to ſtop the looſeneſs has proved fatal to abundance of infants, whilſt they falſely conclude it to be equally dangerous in *this* as in the diſtinct kind; not knowing that it is only detrimental in that kind where the evacuation is made by puſtules,

* *By no means to check this looſeneſs, &c.* A looſeneſs, ſays *Hoffman*, even though it be conſiderable, is not to be apprehended here; for ſo far has it been from hindering either the eruption, or the ſuppuration, and ſtriking the matter in, that I have known it run through the whole courſe of the diſtemper, without danger. And as *petechial* malignant fevers are frequently terminated *critically* by a looſeneſs, ſo likewiſe experience ſhews that the ſame happens in the ſmall pox. Elſewhere he ſays, that in a dry ſummer, the ſmall pox is particularly inflammatory, and readily accompanied with a looſeneſs, which is abſolutely not to be ſtopped, but only moderated by proper remedies; obſerving to avoid the heating regimen, and warm medicines, and likewiſe cooling the body, and refrigerating medicines. Neither, adds he, is a looſeneſs detrimental, when the *ſmall pox*, by reaſon of the irregularity of the ſeaſon, is complicated with *petechiæ*, but it is rather a wholeſome remedy, and admirably purges off the malignant and excrementitious humours.

There are, however, authors who deviate from this opinion, particularly M. de Laſone, who thinks, that a diarrhœa, during the time of the eruption, is ſymptomatic, and that the nature of the ſtools, which are of the ſerous or bilious kind, their quantity, fetor, and frequency are all of them obſtacles to a regular progreſs of the diſeaſe, and the eruption is ſometimes retarded, ſuſpended, and even ſuppreſſed ſo as to produce a rapid and fatal metaſtaſis. He therefore adviſes moderating or ſtopping the evacuation, and recommends the uſe of cows milk mixed with a decoction of parſly roots, and alſo where the tongue and whole inſide of the mouth are covered with a great number of variolous puſtules. This recommendation appears to be the conſequence of experience.—See *Medical Commentaries of Edinburgh*, Decade ii. vol. i. pag. 277. *W.*

but

but is here the work of nature ſearching a paſſage for the diſeaſe to eſcape. Diſregarding therefore the looſeneſs, and aſſiſting nature, as *Hippocrates* directs, I go on as I begun, adviſing them ſometimes to keep the children in the cradle, and ſometimes to take them up; and if they be weaned, I allow them the ſame diet as I before ordered for grown perſons. Chap. 2.

55. In the declenſion of the diſeaſe, *when the face is ſtiff, occaſioned by the eruptions* * becoming cruſty, hard, and dry, I anoint it frequently with *oil of ſweet almonds*, as well to eaſe the pain thence ariſing, as to promote a freer exhalation of the hot *effluvia*. I uſe no endeavours to prevent the pitting of the face, inaſmuch as oils, liniments, *&c.* only cauſe the white ſcurf to ſcale off more ſlowly, which, falling off, and coming on again alternately, after the patient has quitted his bed, and is pretty well recovered, is gradually ſucceeded by unſeemly ſcars. But the patient need not be very anxious about theſe, when by reaſon of a previous temperate regi- The face to be anointed with oil of ſweet almonds in the decline.

men,

* *When the face is ſtiff, occaſioned, &c.* Application of this ſort by obſtructing the pores, rather prevent than aſſiſt perſpiration, therefore not likely to produce a freer exhalation of the hot effluvia, as our author expreſſes himſelf; they are apt to make alſo the pits more viſible; for avoiding which many different remedies have been tried, but not any of them have proved efficacious.

Though Morton obſerves that nothing ſo effectually prevents the eroſion from the acrid matter of the puſtules, whence thoſe unſeemly marks ariſe, as a plentiful uſe of the cortex; and therefore, in all caſes, where it appears, that there is any conſiderable ſharpneſs in the variolous pus, he adviſes that we ſhould begin immediately after the drying of the puſtules, to uſe this ſovereign remedy. In young children, it may be thrown up in form of glyſter, or applied externally. *W.*

Sect. 3. men, the eruptions, having been little irritated, have contracted no cauſtic quality.

A different method ſometimes neceſſary.

56. Now, though this method, provided it be carefully and prudently ſuited to particular circumſtances, will prevent the above-mentioned preternatural and dangerous ſymptoms, and render the diſeaſe very gentle and ſafe; yet in ſome caſes, which I ſhall here ſubjoin, I find it neceſſary to uſe a different method, in order to overcome and remove them, from what cauſe ſoever they ariſe before I am called.

The face, how made to ſwell in the *diſtinct* kind.

57. Firſt, therefore, if in the *diſtinct* kind, by means of an over-hot regimen, and continual ſweats, the face does not ſwell on the *eighth* day, but is flaccid, and the ſpaces between the eruptions look pale, whilſt theſe in the mean time ſhew themſelves in great abundance, beſides uſing my utmoſt endeavours for a more temperate regimen, and to check the violent motion of the blood, I immediately direct an opiate to be given, which by gently procuring ſleep (unleſs the brain be over-heated) and conſequently moderating the tumult raiſed in the blood, ſeaſonably determines it, together with the heat, to the face, as the nature of the diſeaſe demands.

58. But if the miſchief hence ariſing has proceeded ſo far, that the ſweat, which had hitherto flowed plentifully, ceaſes ſpontaneouſly, the patient is ſeized with a *delirium*, complains of great ſickneſs, and makes urine often in a ſmall quantity; in this caſe, the danger of death being imminent, I conceive he can only be relieved, either by giving opiates freely, or taking away a large quantity of blood, and expoſing his body to the open air. Nor, indeed, will what I have

Opiates or bleeding, when required.

now

now propoſed ſeem ſo imprudent and unreaſonable, upon attending to thoſe who have eſcaped imminent death, by a plentiful bleeding at the noſe ſuddenly ariſing. Moreover, it muſt be conſidered that, in this dangerous extremity, death does not enſue becauſe the eruptions ſtrike in, for they appear red and plump, even when the patient is expiring, but becauſe the face does not ſwell. Now whatever tends to abate the heat of the blood (and I conceive none will deny that bleeding and moderate cooling medicines have this virtue) muſt neceſſarily help to promote the ſwelling of the face, as much as the uſe of opiates, and apparently for the ſame reaſons. Chap. 2.

59. But I would not have this underſtood as if I would adviſe bleeding immediately in every *delirium* happening in the *ſmall pox*, ſince no ſymptom oftener occurs in this diſeaſe; but (1.) in that only which happens becauſe the face does not ſwell, that is, in the *diſtinct* kind, the eruptions at the ſame time being pretty numerous; or (2.) where the motion of the blood is become ſo violent and immoderate by means of a very hot regimen, and the uſe of cardiacs, as to render it unſafe to wait till it can be reduced to a due temper by opiates, and other medicines productive of the like effect. When the caſe is thus circumſtanced, the phyſician, conſulting his duty rather than a precarious reputation, *ought either to bleed*,* as above intimated, or order the Further explained with reſpect to bleeding.

* *Ought either to bleed, &c.* The experience of Dr. Mead contradicts the opinion of Dr. Friend, with regard to patients always dying who were ſeized with a delirium on the fourth day of the eruption; for though this is conſidered very properly as an omen of great danger, yet Dr.

Sect. 3. the patient to be refreſhed with the open air; and to obtain the end here it has frequently ſeemed ſufficient to me, for the patient to riſe, and ſit up awhile in his raving fit, by which expedient I have ſaved ſeveral from death. And beſides thoſe I have ſeen, there are numberleſs inſtances of perſons who by this means have been ſnatched from imminent danger; for ſome delirious perſons deceiving their nurſes (and thoſe who are light-headed uſe wonderful contrivances) and getting out of bed, have remained expoſed to the cold air, even in the night; and others again, either by ſtealth, unawares, or by entreaty, have got cold water of their nurſes, and drank it, and thus by a happy miſtake recovered their health when deſpaired of.

Sitting up awhile recommended in a *delirium*.

60. I will here communicate a ſingle inſtance, which I had from the perſon concerned. He told me that when he was a young man, he went to *Briſtol*, and was there ſeized with the *ſmall pox* about *Midſummer*, followed ſoon after by a *delirium*. His nurſe, going into the city, left him in the mean while to the care of ſome other perſons, intending to be back ſoon; but making a pretty long ſtay, the patient in the interim died, as the attendants thought; who conſidering the heat of the ſeaſon, and his corpulency, that the body might not ſmell, took it out of bed, and laid it naked on a table, throwing a ſheet over it. The nurſe at length returning, and hearing the ill news, entered the room to behold the ſad ſpectacle, and imme-

The caſe of a perſon recovered by the like treatment.

Mead by bleeding immediately and throwing up a glyſter, has prevented the fatal cataſtrophe, and cured many in whom this ſymptom made its appearance at that period. *W.*

diately

diately throwing by the ſheet, and looking on his face, imagined ſhe ſaw ſome ſmall ſigns of life, and therefore put him to bed again directly, and uſing ſome means or other brought him to himſelf, and he recovered in a few days. Chap. 2.

61. But to reſume our ſubject: *if the ſaliva in the confluent ſmall pox** becomes ſo hard and viſcid by the preceding heat as to endanger ſuffocation, which, as we obſerved above, commonly happens on the *eleventh* day, a gargariſm muſt abſolutely be uſed, and great charge given to ſyringe the throat with it often, night and day. *Small beer, or barley water, mixed with honey of roſes*, may be uſed for this purpoſe, or the following: A gargariſm to be uſed when the *ſaliva* is hard and tough.

Take of bark of elm, ſix drams; liquorice root, half an ounce; twenty ſtoned raiſins; red roſes, two pugils; boil them together in water ſufficient to leave a pint and half; in which, when ſtrained off, diſſolve ſimple oxymel and honey of roſes, of each two ounces: mix the whole for a gargariſm. The gargariſm.

But if the patient has been treated in a proper manner, the ſalivation, even though it has begun to abate, will ſo effectually anſwer its end, as to render this remedy needleſs. And, in

* *If the ſaliva in the confluent ſmall pox, &c.* So neceſſary is this diſcharge in the confluent ſmall pox, that if it does not ariſe and continue through the whole courſe of the diſeaſe, the moſt fatal effects are to be feared. At the firſt, when neceſſary, the gentler kinds of ſtimulating gargles may be made uſe of; but if theſe do not ſucceed or fail in their power, as they are apt to do from uſe, thoſe which are ſtronger ſhould ſupply their place; ſuch as decoctions of calamus aromaticus, muſtard, horſe-radiſh, and pepper, with the addition of oxymel. *W.*

Sect. 3. reality, when the patient is every moment in danger of ſuffocation, oppreſſed with a *ſtupor*, and breathes with the utmoſt difficulty, it is not ſafe to truſt to this remedy. In this caſe I have ſometimes ſeaſonably and ſucceſsfully given a vomit of the infuſion of *crocus metallorum*, in a larger doſe than ordinary, viz. an ounce and half; becauſe the *ſtupor* is ſo conſiderable that a ſmaller quantity will not operate, but, by diſturbing thoſe humours which it cannot eject, greatly endangers the life of the patient. Neither can we wholly truſt to this remedy, and, which is truly to be regretted, we are hitherto unprovided with a more certain and effectual one to conquer this dreadful ſymptom, which alone deſtroys moſt of thoſe who die on the *eleventh* day in this kind of *ſmall pox*.

A vomit ſometimes ſucceſsful in this caſe.

62. As the other ſymptoms happening in this diſtemper are prevented, ſo likewiſe moſt of them are relieved by a temperate regimen. For inſtance, as the *delirium* above mentioned, proceeding from the too great heat of the brain, is removed by ſome way cooling the blood, ſo by the ſame means a *coma* is eaſily remedied, which ſeems to be a quite different ſymptom from the former, and ariſes from an obſtruction of the *cortical* part of the brain from hot *effluvia*, proceeding from the blood attenuated by a hot regimen, and heating medicines, being violently driven thither in great abundance.

Advantages of a temperate regimen.

A *coma* cured by cooling the blood,

63. By cooling the blood in this manner, I have ſeen purple ſpots removed; but have not yet been able, by this or any other method, to ſtop *bloody urine*, or a *violent flux of blood from the lungs*; but ſo far as I have hitherto obſerved, both theſe hæmorrhages certainly prognoſticate death.

And purple ſpots alſo.

94. *In*

64. *In a ſuppreſſion of urine,** which ſometimes happens in young and lively perſons from the great confuſion and diſorder of the ſpirits ſubſervient to this excretion, by reaſon of the immoderate heat and agitation of the blood and juices, I have had recourſe to all the kinds of diuretics, but nothing has ſucceeded ſo well with me as taking the patient out of bed, who being ſupported by thoſe about him, and taking two or three turns croſs the room, has immediately made water pretty plentifully, to his great relief. To confirm the truth of this, I might here appeal to ſome phyſicians of my acquaintance, who, by my advice, have directed the ſame expedient to be uſed in the ſame caſe, and found it anſwer the end. Chap. 2. A ſuppreſſion of urine how cauſed and remedied.

65. But the ſymptoms proceeding from the ſtriking in of the *variolous* matter, by intenſe cold, or unſeaſonable evacuations, muſt be remedied by cardiacs, and a ſuitable regimen; which, however, muſt not be continued longer than theſe ſymptoms laſt. The principal of theſe are, a *depreſſion*, or *ſinking of the puſtules*, and a *looſeneſs*, both in the diſtinct kind. For in the *confluent* kind neither the ſinking of the puſtules threatens danger, this being the nature of the diſeaſe, nor a looſeneſs in children, becauſe it promotes their recovery. In either caſe Cardiacs, when particularly to be given in the *diſtinct ſmall pox*.

* *In a ſuppreſſion of urine, &c.* As patients are now ſufficiently expoſed to the coolneſs of the atmoſphere, this ſymptom rarely ariſes. Mead recommends the uſe of diuretics, particularly Glauber's ſalt; but the intention of promoting urinary diſcharges is better anſwered by plentiful dilution with fig, or linſeed tea, decoction of bran ſweetened with honey, to which may be added nitre, or the dulcified ſpirit, and glyſters if the patient is coſtive. *W.*

Sect. 3. it is highly proper to give a cordial draught, made of ſome *proper diſtilled waters*, mixed with *diaſcordium, liquid laudanum, &c.* not only in order to remove the above-mentioned ſymptoms, but at any time of the diſeaſe, if the patient complains of a pain at the heart and ſickneſs. But to ſpeak the truth, the ſymptoms of this kind very rarely happen, in compariſon of thoſe ariſing from the other more fatal, though leſs cenſured, extreme. And in reality I judge the rumour which has ſo much prevailed, of the frequent ſtriking in of the eruptions, to proceed from hence, that ſuch as have obſerved the depreſſion of them in the *confluent* kind, eſteemed it to be a ſtriking in of the *variolous* matter from taking cold; whereas here, it is only the nature of the diſeaſe: and they ſuſpect the ſame in the *diſtinct* kind, becauſe they look for the eruptions and increaſe of the puſtules before the due time; not having ſufficiently attended to the time wherein nature uſually finiſhes the ſuppuration of this ſort of ſmall pox.

When and where bleeding ſhould be uſed.

66. When the patient begins to recover, and the eruptions ſcale off, and he has eat fleſh a few days, for example, the *one and twentieth* day, *I judge it requiſite to bleed in the arm,** if the diſeaſe

* *I judge it requiſite to bleed in the arm, &c.* SYDENHAM lays this down as a general rule, but for which there can be no occaſion, without ſome particular ſymptom ſhews the neceſſity; for the miſchiefs ariſing in the conſtitution from the violence of the foregoing diſeaſe are more owing to debility of the ſolids, and an acrimonious ſtate of fluids, than any other cauſe, purging, therefore, is abſolutely neceſſary; ſoft, nutritious diet, tonics, aſſes milk, and gentle exerciſe, taking particular care that the food ſhould not be given too copiouſly, but in ſmall quantities, and properly

caſe has been violent: for the inflammation communicated to the blood by the *ſmall pox*, whether in grown perſons or children, equally indicates bleeding, as the foulneſs collected in the habit does purging; as appears ſufficiently both from the colour of the blood taken away after a ſevere ſmall pox, which exactly reſembles that of pleuritics, and likewiſe from the great inflam- Chap. 2.

perly proportioned to the ſtrength of the digeſtive powers: if theſe rules are obſerved, with the addition of country air, there will ſeldom be any occaſion for bleeding.

Our author has had all along the idea of an inflammatory fever attending the ſmall pox, but this certainly is not always the caſe: fevers of a very different nature are ſometimes the concomitants of the variolous infection. His mode of treatment is in general proper, where the diſeaſe attacks thoſe who have an inflammatory diatheſis in the habit: "But if it ſhould ſeize thoſe of a different temperament, "who have been exhauſted by preceding diſorders, or who "have weak and relaxed fibres, with a poor and thin ſtate "of fluids, and ſhould ſteal on in the ſlow and gradual "way, like a nervous fever; if the countenance ſhould be "found pale, and the pulſe weak and fluttering, the urine "crude and thin, no great thirſt or heat, continued giddi-"neſs and heavineſs of the head, with tremblings, and a "perpetual nauſea, attended with great weakneſs, and de-"jection of ſpirit; in ſuch circumſtances we muſt endea-"vour to rouſe the languid animal motions, by giving "warm wine, or ſtrong ſack whey, with ſome drops of "volatile aromatic ſpirits in each doſe, *and on no account* "attempt to leſſen the quantity of blood, or give any thing "that may bring on a number of looſe ſtools; in this ſitua-"tion, indeed, a gentle emetic will be proper, as its action "may not only promote the eruption, but alſo, by unload-"ing the ſtomach, remove the heavy ſickneſs, and relieve "the anxiety and oppreſſion.

"There are other caſes where bleeding is equally im-"proper, and theſe are when we know the fluids to be in "a putreſcent ſtate, or that there is a putrid fever united "with the variolous matter."—Macbride's *Introduction to the Modern Theory and Practice of Phyſic*, pag. 368.

Sect. 3. inflammations that fall on the eyes after it is gone off, and other pernicious effects, arising from the blood over-heated and vitiated thereby. Hence also it follows, that such as enjoyed a good state before they had the small pox, are afterwards afflicted with a defluxion of sharp hot humours upon the lungs, or some other part, for the remainder of life. But if the pustules were few, bleeding is unnecessary: after bleeding, I purge three or four times.

The swelling of the legs, how remedied.

67. To these observations let me add, that after the patient has been long recovered from the *confluent* small pox, and rises every day, there sometimes happens a troublesome swelling of the legs, which either goes off spontaneously after bleeding and purging, or is easily cured by the use of fomentations, made of *emollient* and *discutient* herbs, boiled in *milk*; as the leaves of *mallows, mullein, elder, laurel, and cammomile and melilot flowers.*—And let this suffice for the history and cure of the *small pox*, that prevailed for these two years, which I chuse to call *legitimate* or *regular*, in order to distinguish them from the other kinds that succeeded them.

To what has been said on this subject it may not be improper to add, that MERCURY has been, in many desperate cases, attended with the most pleasing success, and is considered by some as an excellent preparative, rendering this dangerous disease milder in its effects, and less deleterious in its consequences. An account of which may be seen in Medical Memoirs, published by Dr. Letsom; in which are introduced a variety of cases which favour this opinion, and may justly induce the practitioner to make trial of a medicine which, from its apparent effects in these cases, promises to be of great utility in future. *W.*

CHAP.

CHAP. III.

Chap. 3.

The continued Fever of the Years 1667, 1668, *and part of* 1669.

1. I Proceed now to treat *of the fever that prevailed during this variolous conſtitution*,* and began and ended with the *ſmall pox*. (1.) The patient was ſeized with a pain below the pit of the ſtomach, and ſuch a ſoreneſs that he could not bear to have it touched, which ſymptom I do not remember to have obſerved in any other diſeaſe

The fever of this conſtitution deſcribed.

* *The fever that prevailed during the variolous, &c.* Dr. CULLEN ranks this diſeaſe amongſt the varieties from Sauvages of the Synochus, which he defines—

A contagious diſeaſe; a fever compoſed of the ſynocha, or inflammatory fever, and the typhus, or nervous fever; in the beginning a ſynocha; in its progreſs and termination, a typhus.——See *Synopſis Noſologiæ Methodicæ*, vol. ii. pag. 78.

SAUVAGES calls it SYNOCHUS VARIOLODES, and has copied his account from SYDENHAM and HUXHAM. I confeſs, I do not ſee a ſufficient affinity between the two, to warrant their being ranked as the ſame ſpecies. Huxham takes no notice of the profuſe *ſweating*, *petechiæ*, nor *ptyaliſm*, which Sydenham particularly mentions, and conſiders the latter as a critical evacuation. Beſides, the modes of cure, as delivered by Sydenham and Huxham, are widely different: however, as they both happened during the ſame conſtitution of the air in which the ſmall pox was epidemic, they may be conſidered as variolous fevers, but of different ſpecies, we, therefore, think it not improper to retain Dr. Swan's note from Huxham in this place. *W.*

In 1729, in the month of *July*, the *ſmall pox* prevailed much at *Plymouth*; and, during this month, a *ſlow putrid fever*, which remitted towards the end, and at length intermitted, became very epidemic there. It chiefly affected the head, ſtomach, and loins, as if the ſmall pox was coming on,

Sect. 3. diſeaſe beſides this fever and this kind of ſmall pox; (2.) a pain in the head, a heat of the whole body, and alſo very viſible *petechiæ*; (3.) little thirſt; (4.) the tongue like that of a healthy perſon, unleſs that it was ſometimes white, but very rarely dry, and never black; (5.) profuſe ſpontaneous ſweats in the beginning, which afforded no relief, and, being promoted by a hot

on, and was attended with an oppreſſion of the breaſt, ſighing, and great faintneſs. Such a diſeaſe it was, perhaps, that *Sydenham* intituled a *variolous fever*. It chiefly attacked children, women, young, or weak perſons. The blood taken away was ſeldom viſcid; the urine moſtly crude, thin, and frequently let fall a cineritious, ſlimy, and imperfect ſediment, reſembling flour, called by *Hippocrates*, a *branny ſediment:* the more perfect the ſediment was, the more hopes there were of recovery. The tongue was not very dry, but appeared to be covered with a kind of viſcous browniſh *mucus*. Towards the declenſion of the diſtemper, a looſeneſs, or ſometimes a dyſentery, eſpecially if a vomit had been omitted in the beginning, became very immoderate, and even proved fatal to ſome.

Bleeding, unleſs in the beginning, ſeldom did ſervice; vomits were highly neceſſary, and afterwards *frequent bliſters*, *gradually applied*, *gentle cardiacs*, *cinnabar*, *opiates*, *ſack whey*, and *diluting ſubacid liquors*, drank plentifully, proved very beneficial. As ſoon as the ſigns of *coction* appeared, namely, a ſediment in the urine, and a remiſſion of the fever, the *bark* admirably aſſiſted the cure. If a *coma* or a *delirium* happened in the ſtate of the diſeaſe, there was occaſion to ſet cupping glaſſes on the neck and ſhoulders, to bleed, and immediately apply bliſters, eſpecially behind each ear, and to the head, and forthwith inject a laxative glyſter.

In the declenſion, lenient purges, eſpecially *rhubarb*, advantageouſly carried off the putrid remains of the diſeaſe; but ſtrong purgatives, or *aloetics*, had very dangerous effects; for by the unſeaſonable uſe of theſe we have known the blood impoveriſhed, and dreadful gripings occaſioned: moreover, after a purgative, though it was very gentle, a paregoric draught was altogether neceſſary.

Numbers were ſeized with this diſtemper, but few died of it. *Huxham de Aere et Morb. epid.* pag. 33, 34.

regimen

regimen and hot medicines, soon endangered a *delirium*, augmented the number of the *petechiæ*, and rendered all the other symptoms more violent; (6.) a laudable separation in the urine from the beginning of the illness, that gave hopes of recovery, but did not relieve the patient more than the above-mentioned sweats; (7.) this disease, by wrong management, generally proved very obstinate, neither terminating by way of *crisis*, nor spontaneously in the manner of other fevers; but continued six or eight weeks, accompanied with violent symptoms, unless death interposed and put a stop to it sooner; (8.) when no considerable evacuation had preceded, and cooling julaps had been used, a pretty plentiful salivation sometimes arose towards the decline, whereby the disease was carried off beyond expectation, provided this discharge was not checked by evacuations, or the use of heating medicines. Chap. 3.

2. Now as this fever depended upon that epidemic constitution of the air, which at the same time produced the small pox; so in effect, it seemed to be nearly of the same nature therewith, except in those symptoms which necessarily depended on the eruption. For they both attacked in the same manner, and were attended with the like pain and soreness of the parts below the pit of the stomach, there was the same colour of the tongue, and consistence of the urine, *&c.* The same profuse sweat arose in the beginning, and the same tendency to a salivation when the inflammation was violent, as accompanied the small pox, when it proved of the *confluent* kind. Since therefore this fever did also prevail chiefly at the time the small pox was more epidemic than Nearly resembled the small pox.

I had

Sect. 3. I had ever known it here, no one can doubt their being of the same tribe. This I certainly know, that all the practical indications were manifestly the same in both diseases, those excepted, which the eruption of the small pox, and the symptoms thence arising, afforded, which could not be expected in this fever, because it was not attended with an eruption. And this indeed appeared very evident to me from the accurate observations I made in treating such as had either of these diseases. For these reasons I must be allowed to call this a *variolous fever*, not because I affect the giving new names to things, for no one can dislike that more than I do, but in order to distinguish it from other fevers, and on account of the great similitude which it bears to this sort of the small pox.

Therefore called a *variolous fever.*

Required a different treatment from the *small pox.*

3. But how nearly soever this fever resembled the small pox, no judicious person will conclude that it ought to be treated in the same manner; because in the small pox the inflamed particles are thrown out upon the skin, by means of little abscesses; whereas in the present fever they are discharged by salivation. For the profuse sweats at the beginning were *symptomatical*, not *critical*, nature seeming to have intended no other evacuation in this disease than a spitting; which yet she generally checks, either (1.) by a looseness, which frequently proceeds *from inflammatory rays* * conveyed through the mesenteric arteries into

* *From inflammatory rays, &c.* This expression seems to favour the idea of some authors, who contend, that there are igneous particles in the blood which are ever active, and in fevers, particularly of the inflammatory kind, are superabundant; and by their power create great heat and disturbance

into the inteſtines, and irritating them to diſ- Chap. 3.
charge their contents, (as is uſual alſo in pleuriſies, and other inflammatory fevers, by reaſon of the great commotion of the blood and hot particles, endeavouring to be cooled); or (2.) by the profuſe ſweats, which, by the appointment of nature, equally accompanied this fever and the ſmall pox; and theſe ſweats being *ſymptomatical*, the ſalivation, that would otherwiſe have proved *critical*, was derived another way, whence, unleſs art ſuggeſted ſome other evacuation, the diſeaſe continued for ſome weeks, and did not come to concoction in the manner of other fevers.

4. But to go on with our inquiry: in order to come at a better knowledge of the nature of this fever, and eſtabliſh the curative indications on a ſolid foundation, it muſt be carefully noted that in the fever that prevailed during the *epidemic conſtitutions* which gave riſe to *intermittents*, the matter to be ſeparated from the blood was ſo thick, that it could not be ſeparated without previous digeſtion, fitting it for a proper evacuation, at an appointed time, either by means of a *plentiful perſpiration* or a *critical looſeneſs*; ſo that the phyſician had nothing more to do than to ſuit the treatment to the nature of the diſeaſe, ſo as on the one hand to prevent its riſing too high, and cauſing dangerous ſymptoms, and on the

turbance in the habit: but Sydenham means here inflammatory vapours ſeparated from the blood, which he mentions below in the eleventh paragraph. But it will be more intelligible to our readers, to conſider this looſeneſs ariſing from ſome ſharp acrimonious humours depoſited in the inteſtines, through the meſenteric arteries, and theſe producing irritation, ſupernaturally increaſing their periſtaltic motion. *W.*

other

Sect. 3. other to hinder its ſinking ſo low as to be unable to expel the morbid matter; a fever being the inſtrument of nature to perform this ſecretion.

The matter in the *plague* very ſubtile.

5. Again, there is likewiſe in the *plague* a matter to be ſeparated from the blood, but as the parts thereof are very ſubtile and inflammable (ſo that ſometimes when they are violently irritated, they pervade the blood like lightning, and can raiſe no ebullition therein) it paſſes through the maſs in a moment, and is only ſtopped in a gland, or ſome external part, where, being entangled, it occaſions an inflammation, and afterwards an impoſthume. Now an impoſthume is the inſtrument of nature whereby ſhe expels whatever injures the fleſhy part, as a fever is her inſtrument to carry off whatever is prejudicial to the blood. In this caſe, therefore, it is the buſineſs of the phyſician to aſſiſt nature, in a proper manner, in her endeavours to diſcharge the peſtilential matter by theſe impoſthumes; unleſs, perhaps, it ſhould ſeem more adviſeable to ſubſtitute ſome other evacuation in its ſtead, which might be more in his power, and he could regulate with greater certainty than that of nature. In the ſame manner does nature proceed in expelling the variolous matter, though it is a groſ-

The *ſmall pox* a groſſer ſpecies of inflammation.

ſer ſpecies of inflammation, and diſcharged by means of numerous eruptions, inſtead of carbuncles and buboes, &c. ſo that in this caſe alſo the curative indications are to be ſo directed, as to promote the evacuation by the eruptions in a regular manner.

No ſuch groſs matter in this fever.

6. But as in this kind of inflammatory fever we meet with no ſuch groſs matter requiring previous digeſtion before it can be expelled, as in the intermitting fever above deſcribed, ſo it

is

is a fruitleſs endeavour to promote the ebullition in order to procure this kind of digeſtion. On the contrary, this procedure endangers the increaſing a diſeaſe, the eſſence whereof conſiſts in a very violent inflammation, and muſt likewiſe be improper here, becauſe nature has appointed no evacuation for this fever by eruptions, as we ſee in *peſtilential fevers* and the *ſmall pox*; though in other reſpects it reſembles the latter. Hence it follows, that the whole of the cure neceſſarily conſiſts in checking the inflammation, by evacuations and cooling remedies. Having this end therefore in view, I attempted the cure of this fever by the following method, to which it readily yielded. Chap. 3.

7. Being called to a patient, I immediately directed bleeding in the arm, *if great weakneſs, or eſpecially old age did not contra-indicate*,* and ordered the operation to be repeated every other day, for twice, unleſs the ſigns of recovery rendered it unneceſſary. On the intermediate days I preſcribed a glyſter of milk and ſugar, or the like, to be injected, and directed the following julap, or one of the ſame kind, to be frequently uſed throughout the courſe of the diſeaſe: Its cure.

* *If great weakneſs, or eſpecially old age, &c.* The firſt of theſe *always* requires ſuch a prohibition; but the latter need not be ſo univerſal, becauſe in old people it will be ſometimes neceſſary to bleed, if they ſhould be of a ſtrong plethoric habit; and though they may not bear the repetition, or any copious diſcharge, ſo well as thoſe who are younger, yet ſtill a moderate uſe of the lancet will now and then, when judiciouſly applied, have very ſalutary effects; but, like moſt other remedies that tend to leſſen the powers of the conſtitution, it muſt be regulated according as neceſſity, depending on the nature of the ſymptoms, demands. *W.*

Take

Sect. 3.

The cooling julap.

Take of the diſtilled waters of purſlain, lettuce, and cowſlip flowers, of each four ounces; ſyrup of lemons, an ounce and half; ſyrup of violets, an ounce; mix them together for a julap; and let three ounces of it be taken four or five times a day, or at pleaſure.

I allowed whey, barley water, and ſuch liquors, for common drink; and for diet, barley broth, water gruel, panada, roaſt apples, &c. but I forbad chicken broth, or any kind of broth made of fleſh.

The danger of keeping the bed in this fever.

8. I chiefly recommended that the patient ſhould not keep his bed conſtantly, but riſe every day, and ſit up a good part of the day, having obſerved in this fever, as in the pleuriſy, rheumatiſm, and all other inflammatory diſorders, wherein bleeding and the cooling regimen are the principal remedies, that neither the moſt cooling medicines, nor frequent bleeding, can do ſervice, whilſt the patient lies perpetually in bed, and is inflamed by the heat thereof, eſpecially in the ſummer ſeaſon. And upon this account the ſweat which flowed at times did not deter me from this method of cooling, both by giving cooling medicines, and forbidding a conſtant confinement in bed. For though one might reaſonably expect great advantages in purſuing an indication taken from what generally proves ſerviceable, yet I have found, by conſtant experience, that the patient not only finds no relief, but contrariwiſe is more heated thereby; ſo that frequently a *delirium*, *petechiæ*, and other very dangerous ſymptoms immediately ſucceed ſuch ſweats, which ſeem to ariſe *more from wrong manage-*

*management than** from the malignity of the diſeaſe. Chap. 2.

9. If it be here objected that this method of curing fevers runs directly counter to the theory of thoſe authors, who unanimouſly maintain that a fever is moſt properly and naturally cured by ſweat; beſides the teſtimony of a never-failing experience, which is always on my ſide in the cure of this particular fever, theſe reaſons alſo favour my practice: Firſt, I imagine that thoſe who contend for promoting ſweat in order to take off a fever, mean ſuch a one as appears after the previous digeſtion of ſome humour lodged in the blood, in preparing and moulding of which, that it might be diſcharged by ſweat, nature has employed ſome certain fixed time. But here the caſe is quite otherwiſe, for profuſe ſweats ariſe in the beginning of the diſeaſe, and The method of cure vindicated.

* *More from wrong management than, &c.* This is too often the caſe in the beginning of fevers at this day, from the abuſe of our author's favourite remedy; which may probably ariſe from practitioners not conſidering, or being totally ignorant from what different cauſes ſimilar ſymptoms will ariſe, and from perceptible miſchiefs not immediately ſucceeding the operation; though, in many inſtances, in the laſt ſtages of febrile affection, we have ſeen extreme debility induced from this circumſtance: for in ſome fevers, particularly of the putrid claſs, though they may make their attack with apparently ſtrong vaſcular exertion, yet ſtill great loſs of ſtrength naturally ſucceeds, which bleeding is apt to hurry on, and increaſe in no ſmall degree: in all fevers, therefore, where the attack is ſudden, and great proſtration of ſtrength, though the pain in the head ſhould be acute, the pulſe frequent, and the heat of the body ſupernaturally augmented, ſtill theſe circumſtances authoriſe not the uſe of the lancet, for they ariſe more from nervous affection than vaſcular plenitude; which laſt alone can, in ſuch general affections, make bleeding ſafe and beneficial. *W.*

Sect. 3. alone make a conſiderable part thereof; and if we may judge from all the ſymptoms, this diſeaſe ſeems to proceed rather from the ſole heat of the blood, than from ſome humour concealed therein, to be expelled, after due concoction, by ſweat. But granting there is ſuch an humour to be found in this fever, as requires to be ripened by digeſtion, which is the caſe in many other fevers; yet to what purpoſe is it to comply with nature (whoſe violent efforts it is our buſineſs to moderate) by promoting theſe ſweats with cardiacs, or a hot regimen, when ſhe exerts herſelf too much already, ſince the trite axiom of *Hippocrates*, namely, that *concocted and not crude matters are to be evacuated*, relates to ſweating as much as to purging?

Exemplified in a caſe.

10. Whilſt this conſtitution prevailed, I was called to Dr. *Morice*, who then practiſed in *London*, and now in *Petworth*. He had this fever, attended with profuſe ſweats and numerous *petechiæ*. By the conſent of ſome other phyſicians, our joint friends, he was blooded, and roſe from his bed, his body being firſt wiped dry. He found immediate relief from the uſe of a cooling diet and medicines, the dangerous ſymptoms ſoon going off; and by continuing this method recovered in a few days.

Bleeding and cooling medicines beſt to ſtop the looſeneſs.

11. But to reſume our ſubject: neither did the looſeneſs, which often accompanied this fever, at all hinder my proceeding in the above-mentioned method; having experienced that *nothing proved ſo effectual in ſtopping this diſcharge*,*

* *Nothing proved ſo effectual in ſtopping, &c.* Might not the method recommended by Laſſone, in ſtopping the variolous and morbillous diarrhœa, be here effectual? There ſeems nothing to prevent the trial.——See our Note *, page 190. *W.*

as

as bleeding, and cooling the blood by barley water, whey, and other things above enumerated; inasmuch as this looseness proceeded from inflammatory vapours, separated from the blood through the mesenteric arteries into the intestines, and vellicating these parts. Chap. 2.

12. In reality, this method succeeded admirably with me in the cure of this disease, and seemed better adapted to it than any other. I have, however, sometimes seen a very different method used with success, namely cardiacs and the hot regimen, but the patient always appeared to me to run great hazards unnecessarily. For by this means the *petechiæ*, which were otherwise very few, became exceeding numerous; the thirst, that was generally inconsiderable, was extremely increased, and the tongue, that was otherwise moist, and not much unlike that of healthy persons, except, as we said above, that it was whitish, appeared dry and crisp, and frequently turned black. Lastly, even the sweats, which they endeavoured to force by means of cardiacs, were at length entirely stopped thereby. For too large a quantity of *serum* being drained off by the cutaneous ducts, the blood became unable to furnish more of it, and the fluid part being quite wasted, wherewith it should have been diluted, a dryness of the skin, and a stoppage of the pores ensued, (contrary to the ordinary course nature used to observe in this fever) till at length the blood, being again repleniſhed by the moisture received from the aliment taken in, expels this *serum* together with the fever, partly by medicine, and partly by the force of the fever itself. But in reality this *crisis* was too forced, and too dangerous, and, which is still worse, it seldom happened. The hot regimen much more dangerous.

Sect. 3.

This fever terminated by a ſalivation.

13. But ſince, as we obſerved above, the ſolution or cure of this *fever*, and of the *ſmall pox* likewiſe, which ſo nearly reſembles it, was frequently effected by a ſalivation, which always proved beneficial; ſo that when it flowed copiouſly, I have known both the purple ſpots and fever vaniſh; upon this account, therefore, when the ſalivation begins, no evacuation muſt be made, either by bleeding or glyſters, ſince by the uſe of either, it is odds but the humour is carried another way. But whey and other cooling things promote the neceſſary buſineſs of ſalivation; as, on the contrary, cardiacs, and all heating things, by thickening the matter, check its diſcharge.

The riſe of the *epidemic looſeneſs*.

14. Before this fever went quite off, and particularly in the year 1668, a *looſeneſs* became epidemic, without any manifeſt ſign of a fever, for the conſtitution at this time inclined to the *dyſentery*, which prevailed in the following year, whereof we ſhall treat in the next ſection. Nevertheleſs, I judge this looſeneſs to be the ſame fever with the then reigning variolous fever, and that it only differed in form, and appeared under another ſymptom. For having obſerved that a chilneſs and ſhaking did likewiſe ordinarily precede this looſeneſs, and further, that it generally aroſe from the ſame cauſe with the then reigning fever, it ſeemed probable to me that this fever proceeded from inflammatory rays turned inwards upon the inteſtines, and irritating them to this diſcharge; whilſt the blood, in the mean time, by this revulſion, was freed from the ill effects theſe rays would otherwiſe have occaſioned, without any viſible external ſign of a fever. To this we may add, that the parts below

low the pit of the ſtomach were ſo tender as not to abide the touch, which ſymptoms, as we mentioned above, happened in the ſmall pox and fever of this conſtitution; and the ſame pain and tenderneſs of the fleſh often reached to the *epigaſtrium*, and ſometimes there was an inflammation, which ended in an impoſthume, and deſtroyed the patient: all which apparently ſhewed this looſeneſs to be of the very ſame nature and eſſence with the then reigning fever: and this opinion of mine was further confirmed from the good ſucceſs, which bleeding and the uſe of cooling regimen always had in ſtopping this looſeneſs, for it readily yielded to this method, which is the ſame we uſed in the cure of the variolous fever, as we have frequently mentioned above. But when it was treated in a contrary manner, either (1.) by giving *rhubarb*, and other *lenient purgatives*, to carry off the acrimonious humours, ſuppoſed to irritate the inteſtines to theſe diſcharges; or (2.) by adminiſtering *aſtringents*; this diſeaſe, though naturally gentle, frequently proved mortal, as the bills of mortality of the current year ſufficiently teſtified.—And let this ſuffice for the epidemic diſeaſes that depend on this conſtitution.

Chap. 1.

Bleeding and a cool regimen ſucceſsful in ſtopping it.

Lenient purgatives and aſtringents extremely prejudicial.

SECTION IV. Chap. I.

The epidemic Conſtitution of part of the Year 1669, *and of the Years* 1670, 1671, 1672, *at* London.

1. IN the beginning of *Auguſt*, 1669, the *cholera morbus*, the *dry gripes*, and likewiſe a *dyſentery* that rarely appeared during the ten preceding

Sect. 4. ceding years, began to rage. But though the *cholera morbus* proved more epidemic than I had ever known it before, yet nevertheleſs it terminated this year in *Auguſt*, as it always does, and ſcarce reached the firſt weeks of *September*. But the dry gripes continued to the end of *autumn*, and accompanied the dyſentery, and prevailed more generally than that diſtemper. But upon the coming in of *winter*, this diſorder likewiſe vaniſhed, and appeared no more throughout the ſubſequent years wherein this conſtitution prevailed, whereas the dyſentery became more epidemic. Now I judge the cauſe of this to have been, that the then reigning conſtitution had not yet ſo perfect a tendency to a dyſentery, as to be able to produce all thoſe ſymptoms in every ſubject, which affect ſuch as are ſeized with this diſeaſe; for in the following *autumn*, when the gripes returned, the *dyſentery* was accompanied with every pathognomic ſymptom.

The riſe of the *dyſenteric fever*.

2. Between theſe gripes and the above-mentioned dyſentery, which raged very univerſally, a new kind of fever aroſe, and attended both diſeaſes, and not only attacked ſuch as had been afflicted with either of the former, but even thoſe who had hitherto eſcaped them, unleſs that ſometimes, though very ſeldom, it was accompanied with ſlight gripings, ſometimes with ſtools, and at others without. Now as this fever in ſome meaſure reſembled that which frequently attended the above-mentioned diſeaſes, it muſt be diſtinguiſhed from others, by the title of the *dyſenteric fever*; eſpecially ſince, as we ſhall afterwards ſhew, it only differed from the genius and nature of the dyſentery in this particular, that it had not thoſe diſcharges which always

ways accompany the dyſentery, nor the other effects neceſſarily occaſioned by this evacuation. Upon the approach of winter the dyſentery vaniſhed for a time, but the dyſenteric fever raged more violently; and a mild *ſmall pox* alſo appeared in ſome places. Chap. 1.

3. In the beginning of the following year, namely, in *January*, the *meaſles* ſucceeded, and increaſing every day till the vernal equinox, ſuffered few families, and particularly no children, to eſcape. But from this time they abated nearly in the ſame degree they had increaſed, and appeared no more throughout all thoſe years wherein this conſtitution prevailed, excepting only the following year, in which they ſeized a few at the ſame time they aroſe in the preceding year. The *meaſles* appeared in January 1670,

4. This kind of the *meaſles* introduced a kind of *ſmall pox*, which I was hitherto unacquainted with, ſo that to diſtinguiſh it from the other kinds, I chuſe to entitle it the *anomalous* or *irregular ſmall pox* of the *dyſenteric conſtitution*, becauſe of its irregular and uncommon ſymptoms, which differed conſiderably from thoſe of the *ſmall pox* of the foregoing conſtitution; as will appear hereafter, when we come to give the hiſtory thereof. The ſmall pox, though not near ſo common as the meaſles, attacked ſeveral perſons till the beginning of *July*, when the dyſenteric fever prevailed, and became epidemic. But upon the approach of autumn, namely in *Auguſt*, the dyſentery returned, and made a greater devaſtation than in the preceding year, but it was checked by the winter's cold, as before; and theſe being conquered, the dyſenteric and introduced an *anomalous ſmall pox*. The courſe of the diſeaſes of 1670.

Sect. 4. fever and ſmall pox raged the winter throughout.

Intermittent tertians aroſe in Feb. 1671.

5. But about the beginning of *February* in the following year, *intermittent tertians* aroſe, whence both diſeaſes became leſs frequent. And although theſe tertians were not very epidemic, yet prevailed more generally than I had ever ſeen at any other time ſince the cloſe of that conſtitution, which, as we before obſerved, had ſo remarkable a tendency to produce them. But theſe, according to the manner of vernal intermittents, went off immediately after the ſummer ſolſtice. In the beginning of *July* the dyſenteric fever again reſumed the ſtation it held in the preceding years; and towards the decline of autumn, the dyſentery returned a third time, but did not rage ſo much as in the immediately foregoing year, wherein it ſeemed to have arrived at its height: but upon the approach of winter it vaniſhed, and the dyſenteric fever and ſmall pox prevailed during the reſt of that ſeaſon.

The order in which the epidemic diſeaſes proceeded in 1671.

1672.

6. We obſerved above, that at the beginning of the two preceding years, two remarkably epidemic diſeaſes raged (*e. gr.*) the *meaſles* at the beginning of 1670, and *intermittent tertians* at the beginning of 1671, and prevailed ſo conſiderably as to overpower the ſmall pox, and prevent its ſpreading much in the beginning of theſe years. But in the beginning of 1672, when thoſe obſtacles to its progreſs were removed, and this diſtemper reigned alone, it of courſe proved very epidemic till *July*, when the dyſenteric fever again prevailed, but ſoon gave place to the dyſentery, which returned a fourth time in *Auguſt*, and was then not only leſs frequent, but attended

attended with milder ſymptoms than in the former years. Moreover, the ſmall pox likewiſe attacked a few, ſo that it was not eaſy to diſtinguiſh which of the two diſeaſes prevailed. I conceive indeed that the conſtitution of the air having a leſs tendency to produce the dyſentery, rendered the ſmall pox powerful enough to equal it, otherwiſe than it happened in thoſe years wherein the dyſentery proved extremely mortal in *Auguſt*. The winter, as uſual, put a ſtop to the dyſentery, but the fever and ſmall pox remained, and the latter, according to its nature, became the chief diſeaſe, and continued all winter, and attacked a few in the following ſpring, and likewiſe in the beginning of ſummer; but it was conſiderably milder than this kind had been before. Chap. 1.

7. But when I affirm that one epidemic diſeaſe is expelled by another, I do not mean that the yielding diſeaſe becomes quite extinct, but only leſs frequent; for during this conſtitution each diſeaſe appeared even in that ſeaſon which leaſt favoured it. For inſtance, the dyſentery, though it be a diſeaſe particularly belonging to *autumn*, did perhaps attack a few in the ſpring, but very rarely.

How the diſeaſes ſucceeded each other during this conſtitution.

8. We have therefore ſufficiently proved that, during the courſe of this conſtitution, the dyſenteric fever prevailed in the beginning of *July*, in which month *autumnal* fevers as certainly ariſe, as vernal ones do in *February*. But upon the approach of autumn the dyſentery ſucceeded it, which, ſtrictly ſpeaking, is an autumnal diſeaſe; and this being overcome by the winter, the dyſenteric fever and the ſmall pox prevailed, which laſt diſtemper continued all that winter, the next

Sect. 4. spring, and enſuing ſummer, till the return of *July*, when it was expelled by the epidemic dyſenteric fever.—And theſe were the revolutions that happened whilſt this conſtitution laſted.

Every general conſtitution has its peculiar periods.

9. It muſt further be obſerved, that as each epidemic diſeaſe is attended with its periods of increaſe, height, and decline, in every ſubject; ſo likewiſe every general conſtitution of years that has a tendency to produce ſome particular epidemic, has its periods, according to the time it preſides; for it grows every day more violent, till it comes to its height, and then abates nearly in the ſame degree, till it becomes extinct, and yields to another. But with reſpect to the ſymptoms, they are moſt violent in the beginning of the conſtitution, after which they gradually abate, and in the cloſe thereof are as mild as the nature of the diſeaſe, whence they proceed, will give leave: which appears manifeſt in the dyſentery and ſmall pox of this conſtitution, as we ſhall preſently ſhew more at large. I proceed now to treat particularly of the diſeaſes of this conſtitution, according to the order which they obſerved.

CHAP. II.

Of the Cholera Morbus *of the Year* 1669.

When the *cholera morbus* ariſes.

1. THIS diſeaſe, as we before ſaid, was more epidemic in the year 1669, than I ever remember to have known it in any other. It comes almoſt as conſtantly at the cloſe of *ſummer*, and towards the beginning of *autumn*, as ſwallows in the beginning of *ſpring*, and cuckows towards

towards *midſummer*. There is alſo an indiſpoſi- Chap. 2.
tion cauſed by a ſurfeit, which happens at any time of the year, which with reſpect to its ſymptoms reſembles the *cholera morbus*, and yields to the ſame treatment, and yet it is of a different kind. *The cholera morbus** is eaſily known by the following ſigns: (1.) immoderate vomiting, and a diſcharge of vitiated humours by ſtool, with great difficulty and pain; (2.) violent pain and diſtenſion of the *abdomen*, and inteſtines; (3.) heart-burn, thirſt, quick pulſe, heat and anxiety, and frequently a ſmall and irregular pulſe; (4.) great *nauſea*, and ſometimes colliquative ſweats; (5.) contraction of the limbs; (6.) fainting; (7.) coldneſs of the extremities, and other like ſymptoms, which greatly terrify the attendants, and often deſtroy the patient in twenty

Its ſymptoms.

* *The cholera morbus, &c.* The diſeaſe here deſcribed by Sydenham, is the true *cholera morbus*, and may be concifely defined, "A vomiting, and at the ſame time a "purging of a bilious humour, attended with anxiety, gri-"pings, and ſpaſms of the extremities." It is conſidered of two kinds, "firſt, called *ſpontaneous*, when it ariſes in "warm weather without any manifeſt cauſe; ſecond, *acci-*"*dental*, from acrid materials taken into the habit; and "ſometimes it is only ſymptomatic.—See Cullen's *Synopſis Noſologiæ Methodicæ*, vol. ii. pag. 240.

The vomiting and purging combined, and acting together, or alternately, are the principal ſymptoms; what is evacuated conſiſting for the moſt part of bile. Hence is it concluded, that the immediate cauſe of this complaint is violent contractions of the ſtomach and inteſtines, occaſioned by an increaſed bilious ſecretion, and copious effuſion into the alimentary canal; the bile being alſo of a more acrid quality than natural: hence the reſtleſsneſs, anxiety, gripings, &c. It differs from a bilious diarrhœa, in being conſtantly attended with ventricular evacuations, and being more replete with danger. *W.*

four

Sect. 4. four hours. *There is likewiſe a dry cholera* * cauſed by a *flatus*, paſſing upwards and downwards, without retchings, or ſtools, which I never ſaw but once, and that was, at the beginning of the preſent *autumn*, when the former kind was very common.

The dry *cholera* extremely rare.

Purgatives and aſtringents bad in the *cholera morbus.*

2. Much conſideration and experience have taught me, that to endeavour on the one hand to expel the ſharp humours which feed this diſeaſe by *purgatives*, would be like attempting to extinguiſh fire with oil, as the moſt lenient cathartics would increaſe the diſturbance, and raiſe new tumults. And, on the other hand, to check the firſt effort of the humour in the very beginning by *opiates* and other *aſtringents*, whilſt I prevented the natural evacuation, and forcibly detained the humour in the body, would doubtleſs deſtroy the patient by an inteſtine commotion, the enemy being pent up in the bowels. Theſe reaſons therefore led me to keep the middle path, *viz.* partly to evacuate, and partly to dilute the humour; and *by this method*, which I found out and experienced many years ago, *I have always conquered this diſeaſe.*†

3. Let

* *There is likewiſe a dry cholera, &c.* This is a conſiderable diſtenſion of the ſtomach and bowels by flatulent vapours, which are plentifully diſcharged both upwards and downwards, with extreme anxiety: a remarkable inſtance of which may be found in *Act. Med. Berolin.* Dec. ii. vol. iii. pag. 73.

It is alſo mentioned, according to SAUVAGES, by *Galen*, cholera, from flatus: by *Menjotius*, flatulent cholic; by *Riverius*, ſuppreſſed cholera; by *Langius*, hypochondraic cholera; and by *Hippocrates*, dry cholera.—*Noſologiæ Methodica*, vol. ii. pag. 352. *W.*

† *By this method I have always conquered this diſeaſe, &c.* This mode of cure has been long adopted, and in the genuine

3. Let a chicken be boiled in about three gallons of ſpring water, ſo that the liquor may ſcarce taſte of the fleſh; and let ſeveral large draughts of it be drank warm, or, for want of it, of poſſet drink. At the ſame time a large Chap. 2. How to be treated.

nuine cholera, eſtabliſhed by ſucceſsful experience.—Dr. *Charles Ayrton Douglas* firſt orders plentiful dilution with warm water, and afterwards recommends a drink to be copiouſly taken, made of a decoction of oat bread, baked without leaven or yeaſt, carefully toaſted as brown as coffee, but not burnt; which decoction ought to be of the colour of weak coffee: this he affirms is moſt grateful to the ſtomach, and he does not remember that it was ever vomited up. He thinks, alſo, that wheat bread, or meal well toaſted, may be equally effectual.——Dr. CULLEN, after plentiful dilution, both by the mouth and anus, with mild diluents; after the redundant bile ſeems ſufficiently waſhed out, and even before that, if the ſpaſmodic affections of the alimentary canal become very violent, and are communicated in a conſiderable degree to other parts of the body, or when a dangerous debility ſeems to be induced, obviates the irritation by opiates in ſufficiently large doſes, but in ſmall bulk, and gives them either by the mouth or by glyſter. And when the operation of the opium is over, ſhould the diſeaſe ſhew a tendency to return, and for at leaſt ſome days after the firſt attack the irritability of the inteſtines, and their diſpoſition to fall into painful ſpaſmodic contractions, ſeem to continue, he adviſes a repetition of opiates for ſeveral days, and in order to conquer the debility commonly induced, with opiates he employs the Peruvian bark, from its tonic powers—*Practice of Phyſic*, vol. iv. pag. 46. ſect. 1462, *&c.*—In this diſeaſe the radix Columbo is eſteemed by ſome practitioners, and with great juſtice, highly efficacious. It is ſaid to require rarely any means to be uſed previous to its exhibition, for diſcharging the bile, or clearing the ſtomach and inteſtines, though plentiful dilution in the beginning I have found uſeful. It may be given in tincture, decoction, extract, or powder, but the laſt is preferable—in doſes of from fifteen grains to two drams, given every three or four hours in any ſimple water, ſuch as peppermint or cinnamon, it proves moſt commonly ſucceſsful. *W.*

quantity

Sect. 4. quantity of the ſame is to be given at ſeveral times, ſucceſſively, by way of glyſter, till the whole be taken in and diſcharged by vomiting and ſtool. An ounce of the *ſyrup of lettuce, violets, purſlain, or water lily*, may now and then be added to the draughts and glyſters; but the chicken water will anſwer the end pretty well alone. The ſtomach in this manner being often loaded with a large quantity of liquor, and its motion, as it were, inverted thereby, and glyſters being frequently thrown in, the ſharp humours are either evacuated, or, their acrimony being blunted, reſtored to their due temper and mixture.

An opiate, when to be given.

4. When this buſineſs is over, which requires three or four hours, an opiate completes the cure. I frequently uſe the following, but any other may be ſubſtituted in its ſtead:

An anodyne draught.

Take of cowſlip flower water, an ounce; aqua mirabilis, *two drams*; *liquid* laudanum, *ſixteen drops*; *mix them together.*

This method ſafer and quicker than the common one.

5. This method of diluting the humours is abundantly ſafer and quicker than the ordinary one of treating this dangerous diſeaſe, either by *evacuants*, or *aſtringents*; for evacuants increaſe the diſturbance and commotions, and aſtringents detain the enemy in the bowels, ſo that, not to mention the trouble occaſioned by prolonging the diſeaſe, there is danger leſt the vitiated humours get into the blood, and cauſe a fever of a bad kind.

When *laudanum* is to be immediately given.

6. But it muſt be carefully noted, that if the phyſician be not called till the vomiting and looſeneſs have continued, for inſtance, ten or twelve hours, and the patient is exhauſted, and the extremities are grown cold, he muſt then, omitting

omitting all other remedies, have immediate recourſe to *laudanum*, the laſt refuge in this diſeaſe; which is not only to be given during the urgency of the ſymptoms, but repeated every morning and night after the vomiting and looſeneſs are gone off, till the patient recovers his former ſtrength and health. Chap. 2.

7. Though this diſeaſe be epidemic, as we remarked above, yet it very rarely laſts longer *than the month of Auguſt*, * wherein it began; whence

* *Longer than the month of Auguſt, &c.* Though our author conſiders this diſtemper to be confined to the month of Auguſt, yet has he obſerved that it ſometimes appears towards the end of ſummer, when the ſeaſon was unuſually warm, and that in proportion to the heat, the violence of the diſeaſe was greater. From the obſervation of others, it has ſhewn itſelf more early in the ſummer, and always ſooner or later according as the great heat ſooner or later ſet in; hence it is concluded, that diſeaſe is the effect of a warm atmoſphere producing ſome change in the ſtate of the bile, either rendering it more acrid, or more copious, and thus preparing it to paſs off in larger quantity than uſual. But there are other cauſes, which we have ſpecified, creating a ſecond ſpecies of cholera, which require different treatment. If it ſhould be occaſioned by *corroſive poiſon*, all ſuch things ought to be given as will ſheath the ſtomach and inteſtines from the force of its irritating power, ſuch as the mild expreſſed oils, decoction of linſeed, hartſhorn ſhavings, water gruel, &c. but particularly milk mixed with abſorbent powders.—*If by ſtrong emetics, and purgatives*, warm opiates ſhould be given, the ſtomach and abdomen fomented with ſpirituous and ſtrengthening fomentations, and afterwards embrocations of volatiles, eſſential oils, &c. mixed with opiates ſhould ſucceed.

If from a crapula, or ſurfeit, the ſtomach and inteſtines ſhould be emptied as ſoon as poſſible by emetics, and gentle cathartics, and diluting liquors plentifully ſupplied; afterwards we ſhould have recourſe to tonics.

If from violent fits of anger, cooling nitrous medicines with mucilaginous decoctions, with gentle opiates; theſe will aid

Sect. 4.

whence one may take occaſion to conſider the elegant and ſubtile contrivance nature uſes in producing epidemic diſeaſes. For though the ſame cauſes entirely remain, which may occaſion this diſtemper in ſeveral perſons towards the end of *September* as well as in *Auguſt*, namely, a ſurfeit of fruit, yet we find the ſame effect does not follow. For whoever carefully attends to the appearances of a *legitimate* or true *cholera morbus*, of which only we now treat, muſt acknowledge that the diſeaſe occaſionally happening at any other time of the year, though proceeding from the ſame cauſe, and accompanied with ſome of the ſame ſymptoms, totally differs from that juſt mentioned; as if there lay concealed ſome peculiar diſpoſition in the air of this particular month, which is able to impregnate the blood, or ferment of the ſtomach, with a kind of ſpecific alteration, adapted only to this diſeaſe.

A ſurfeit totally different from the true *cholera morbus*.

aid in mitigating the diſturbance, ſheathing and correcting the acrimony of the bile, which being effected, gentle vomits, and mild purgatives may be adminiſtered, though at firſt theſe laſt ſhould by no means be had recourſe to, leſt an inflammation of the ſtomach ſhould be the conſequence. And it ſhould be obſerved in the genuine cholera, as well as in this which may ariſe from ſome accidental cauſe, if the patient is of a plethoric habit, and the pulſe full and hard, we ſhould bleed, which will ſometimes alone ſtop the vomiting. Boerhaave highly extols oleum ſulphuris per campanam in a cholera ariſing from a ſurfeit of fruit in autumn, however as this preparation is now ſeldom made, the vitriolic acid properly diluted will anſwer every good purpoſe. *W.*

CHAP.

CHAP. III. Chap. 3.

Of the Dyſentery of part of the Year 1669, *and of the Year* 1670, 1671, 1672.

1. IN the beginning of *Auguſt*, 1669, as before obſerved, the *dry gripes* appeared, and during the courſe of that autumn equalled, or rather exceeded the *dyſentery* which aroſe with them, in reſpect to the numbers they attacked. Sometimes a fever accompanied them, and ſometimes not; but they exactly reſembled the gripes which attended the dyſentery that prevailed at the ſame time; for they were extremely violent, and attacked at intervals, but no natural or mucous ſtools ſucceeded. They prevailed equally with the dyſentery throughout this autumn, but appeared no more epidemically in the following years of this conſtitution. As theſe dry gripes differ little either in their nature, or the method whereby they were eaſily removed, from the dyſentery, *I proceed to treat of this laſt diſtemper.** The riſe and progreſs of the dry gripes. To be treated as the dyſentery.

2. It

* *I proceed to treat of this laſt diſtemper, (dyſentery) &c.* In the Synopſis Noſologiæ Methodicæ Culleni we find a conciſe and accurate definition of the dyſentery, with the cauſes of its variations. It is there ſaid to be, a contagious, febrile affection; with frequent mucous or bloody ſtools, the alvine fæces for the moſt part being retained, attended alſo with gripings and teneſmus; varying according as it is accompanied either with *worms*; *the rejection of fleſhy, or ſebaceous ſubſtances*; *an intermittent fever*; *without blood*; *or having miliary eruptions as its aſſociate*; hence called, DYSENTERIA *verminoſa*; *carnoſa*; *intermittens*; *ſine ſanguine*; & *miliaria*;—and it is alſo ſometimes dependant on other diſeaſes, hence is it ſymptomatic: its remote cauſe is conſidered

Sect. 4.

The *dysentery* usually comes in the beginning of *autumn*.

2. It has been already remarked that the *dysentery* generally comes, as the present one did, in the beginning of *autumn*, and goes off for a time upon the approach of winter; but when a series of years are too much disposed to produce it epidemically, it may seize a few at any other time, and abundance at the beginning of spring, or perhaps earlier, if warm weather immediately succeeds a severe frost, terminated by a sudden thaw. And though very few may be attacked with it, yet as this happens at so unusual a time, I am well convinced that the constitution eminently favours this disease. Thus it happened in those years wherein the dysentery proved very epidemic; for sometimes, as we observed above, it seized a few towards the end of winter, or beginning of spring.

Its symptoms.

3. It sometimes begins (1.) with a chilness and shaking, immediately succeeded (2.) by a

sidered to be a specific contagion, and the proximate, or at least the chief part of the proximate cause, on an attention to which the cure in a great measure depends, consists in a preternatural constriction of the colon, occasioning at the same time those spasmodic efforts which are felt in severe gripings, and which efforts propagated downwards to the rectum, occasion there the frequent mucous stools, and tenesmus.—Dr. Cullen seems to be doubtful whether this explanation will be admitted, but the reasons he offers in its support, as experience confirms their validity, are tolerably conclusive; for he observes, that it is certain, that the hardened fæces retained in the colon are the cause of the griping, frequent stools, and tenesmus, because the evacuation of their fæces, whether by nature or art, gives relief from the symptoms mentioned; and it will be more fully and usefully confirmed by this, that the most immediate and successful cure of dysentery is obtained by an early and constant attention to the preventing the constriction, and the frequent stagnation of fæces in the colon.—*W.*

heat

heat of the whole body, as is usual in fevers, and soon after (3.) gripes and stools follow: it is indeed, frequently, not preceded by a fever, but the gripes attack first, and stools soon succeed; (4.) however, intolerable gripings, and a painful descent, as it were, of all the bowels always accompany the *stools*, which are very frequent; *and* (5.) *all mucous*,* not excrementitious, unless that sometimes an excrementitious one intervenes without any considerable pain; (6.) the mucous stools are generally streaked with blood, but sometimes not the least blood is mixed with them, throughout the whole course of the disease; nevertheless if they be frequent, mucous, and accompanied with gripings, the distemper may as justly be entitled a dysentery, Chap. 3.

* *Stools, all mucous, &c.* These are very various; where they are merely mucous, the disease has been called, *morbus mucosus*, and *dysenteria alba*. But, for the most part, along with the stools there is a mixture of blood; sometimes the mucus is only streaked with blood; sometimes more uniformly mixed; and sometimes pure blood is in considerable quantities evacuated: in other respects the matter voided is variously changed in colour and consistence; and the stools are all along distinguished by a peculiar smell, different from what is common and natural; though this is always offensive, yet not so extremely bad at first, but towards the end of the disease; and in cases that turn out mortal, the fætor is cadaverous and intolerable: sometimes it is probable a genuine pus is voided, and frequently a putrid sanies; proceeding from gangrenous parts. These are very often mixed with the liquid matters, some films of a membranous appearance, and frequently some small masses of a seemingly sebaceous matter. When the natural fæces appear, though it is seldom, in them, they are in the form of scybala, that is, in somewhat hardened, separate balls, which, however produced, procure a remission of all the symptoms, and more especially of the frequent stools, griping, and tenesmus.—Cullen's *Practice*, and Macbride's *Introduction*. *W.*

Sect. 4. as if blood was diſcharged along with them.

A hot regimen and cardiacs detrimental.

(7.) Farther, *if the patient be in the vigour of life, or has** been heated by cardiacs, a fever ariſes, and the tongue is covered with a thick, white *mucus*; and if he has been very much heated, it is black and dry; great loſs of ſtrength and lowneſs of ſpirits, and all the ſigns of an ill-conditioned fever are joined with it. (8.) This diſeaſe occaſions extreme pain and ſickneſs, and greatly endangers life, if unſkilfully treated; for when the ſpirits are much exhauſted, and the vital heat diminiſhed by frequent ſtools, before the matter can be expelled from the blood, a coldneſs of the extremities enſues, and there is danger of death even within the periods of acute diſeaſes. But if the patient eſcapes for this time, ſeveral ſymptoms of a different kind ſucceed; for inſtance, ſometimes in the progreſs of the diſeaſe, inſtead of thoſe ſanguineous filaments which are uſually mixed with the ſtools in the beginning, a large quantity of pure blood, unmixed with *mucus*, is voided at every ſtool, which, as it manifeſts an eroſion of ſome of the larger veſſels of the inteſtines, threatens death. (9.) *Sometimes alſo the inteſtines are affected with** an incurable gangrene, cauſed by the violent inflam-

* *If the patient be in the vigour of life, or has, &c.* There ſeems to be no neceſſity for either of theſe circumſtances to produce the fever; becauſe it is always an attendant ſymptom; though various in its nature, being very often of the putrid, ſometimes of the remittent kind, obſerving a tertian type, and at others of the inflammatory claſs; which may be diſtinguiſhed by obſerving the ſymptoms peculiar to each of theſe kinds of fever. *W.*

* *Sometimes alſo the inteſtines are affected with, &c.* If the pain and thirſt ceaſe at once, the excrements be voided involun-

inflammation arising from the plentiful afflux of the hot and sharp matter to the affected parts. (10.) Moreover, at the decline of the disease, *aphthæ* frequently affect the internal parts of the mouth, especially when the patient has been kept very hot for a long time, and the evacuation of the peccant matter checked by astringents, the fuel of the disease not having been first carried off by cathartics; these *aphthæ* generally foreshew imminent death. Chap. 3.

involuntarily, and have a fetid cadaverous smell, the pulse be small, and convulsions succeed, the intestines are judged to be affected with an incurable gangrene. A *delirium*, *aphthæ*, inflammation of the throat, a palsy of the whole *œsophagus*, coldness of the extremities, great anxiety, convulsions, and an hiccup, are esteemed mortal signs in this disease. It is dangerous in women in child-bed, and oftener destroys aged, and very young persons, than the middle aged. When it attacks cachectic, scorbutic, consumptive, or weak constitutions, and those who have suffered long under some disorder of mind, the case is generally desperate; and it threatens danger when the patient is troubled with worms. When it is accompanied with vomiting, and an hiccup succeeds, an inflammation of the stomach is to be apprehended. When the excrements are green, or black, and very fetid, and mixed with caruncles, the danger is imminent; for these signs denote an ulcer in the intestines. It is also an extremely bad sign if the glysters come away immediately after being injected, or the *anus* be so close shut that nothing can be thrown in; the former denoting a paralytic disorder of the intestines, especially of the *rectum*, and the latter a vehement spasmodic contraction of the same. It is proper to know that this disease sometimes proves mortal in a short time, namely, in *seven* or *eight* days, particularly if a malignant fever prevails; but sometimes it runs on to the *fortieth* day, and beyond it, and when it has continued a long time either destroys the patient, or though it goes off, leaves some troublesome disorder behind it, often terminating in a *dropsy*, *lientery*, the COELIACA PASSIO, and *incurable hectic*, or a *consumption*.

Sect. 4.

This disease sometimes ends in a *tenesmus.*

4. But if the patient survive the foregoing symptoms, and the disease prove lasting, the intestines at length seem to be affected successively downwards, till it be driven to the *rectum*, and ends in a *tenesmus*; upon which the natural stools, otherwise than in a dysentery, occasion great pain in the bowels, the *fæces* in their passage through them abrading the small guts; whereas the mucous stools only offend the *rectum* during the time that the matter is made, and discharged. But though this disease often proves mortal in grown persons, and especially in the aged, it is nevertheless very gentle in children, who have it sometimes for some months without any inconvenience, provided the cure of it be left to nature.

Is gentle in children, though it often destroys adults.

5. What similitude there is between the dysentery here described, and *the endemic dysentery of Ireland*,* I know not, having hitherto no ac-

* *The endemic dysentery in Ireland, &c.* This seems to be an error, according to Dr. MACBRIDE, who practised in that country, and says, The dysentery is a frequent disease, and was formerly held endemic in Ireland; but during the course of the present century, it does not appear to be more common in this kingdom than Great Britain. In all marshy countries the dysentery is apt to ensue after hot and dry summers; for in such situations, and during such weather, great store of putrid vapours is raised from the earth, and suspended in the higher parts of the atmosphere while the heat continues, but when the cold evenings of autumn come on, the miasmata fall down, and are productive of many diseases.

The dysentery is apt to be epidemic after seasons wherein the fruits of the earth have been spoiled, or not duly ripened; and when people have been obliged to make use of bread made of damaged corn, or bad flour, or to feed on half rotten flesh or fish; and it often arises, like malignant fevers, in close, dirty places, where great numbers of people are crowded together.—*W.*

count

count of the latter. Neither have I discovered how far this dysentery resembles those happening in other years here in *England*. For, possibly, there may be as many sorts of dysenteries as there are kinds of small pox, and other epidemics peculiar to different constitutions, and which may therefore require a different method of cure in some particulars. Nor should this procedure of nature so much raise our wonder, since it is universally acknowledged, that the farther we penetrate into any of her works, the clearer proofs we have of the exceeding variety, and almost divine contrivance of her operations, which far surpass our comprehension. So that whoever has undertaken to fathom these matters, and search into the multifarious operations of nature, will find himself disappointed in his expectation, and not succeed in the attempt; and, besides, if he be a judicious person, he will expect to be censured for making the most useful discoveries, for no other reason but because he was the first inventor.

Chap. 3.

There may perhaps be various kinds of dysenteries.

6. It must be farther observed, that all epidemics, at their first appearance, as far as can be judged from their symptoms, seem to be of a more spirituous and subtile nature, than when they become older; and that the more they decline, the more gross and humoural they daily grow; for whatever kind of particles those are, which, being intimately mixed with the air, are esteemed to produce an epidemic constitution, it is reasonable to conclude that they are possessed of a greater power of acting at their first appearance, than when their energy is weakened. Thus in the infancy of the *plague* scarce a day passed, but some of those who were seized with

All epidemics most subtile and spirituous at their rise.

Sect. 4. Exemplified in the *plague*.

it died suddenly in the streets, without having had any previous sickness; whereas, after it had continued for some time, it destroyed none, unless a fever and other symptoms had preceded; whence it clearly follows, that this disease, though it then took off fewer persons, was more violent and acute in the beginning than afterwards, when its influence was more extensive.

And this *dysentery*.

7. In the like manner in the dysentery under consideration, all the symptoms were most severe in the beginning, though, with respect to the numbers affected thereby, it increased daily till it came to its height, when consequently more persons died than in the beginning; yet the symptoms were more violent then, than in the height, and much more so than in the decline thereof, and, all circumstances being alike, abundance more perished. To this may be added, that the longer it continued, the more humoural it seemed to be; for instance, the first *autumn* it attacked, several had no stools at all; but with respect to the severeness of the gripings, the violence of the fever, sudden decay of strength, and other symptoms, it much exceeded the dysenteries of the following years. And farther, the dysentery accompanied with stools, which appeared first, seemed to be of a more spirituous and subtile nature than those that succeeded; for in the first dysentery the provocations to stool, and straining, were greater and more frequent, and the stools, especially the natural ones, less both in point of quantity and frequency. But generally as the disease proceeded on its course, the gripings abated, and the stools became more natural, and, at length, the epidemic constitution declining, the gripes were

were ſcarce felt, and the excrementitious or natural ſtools exceeded the mucous ones in number. Chap. 3.

8. To proceed, at length, to the curative indications: after having attentively conſidered the various ſymptoms attending this diſeaſe, I diſcovered it to be a *fever* of its own kind, turned inwards upon the inteſtines; by means of which the hot and ſharp humours, that were contained in, and agitated the blood, were thrown off by the meſeraic arteries upon theſe parts, whence blood was diſcharged by ſtool, the mouths of the veſſels being opened by the impulſe of the blood and humours flowing thereto. And by the violent and frequent efforts of the inteſtines to diſcharge the ſharp humours that continually vellicate them, the *mucus*, wherewith their inſide is naturally covered, is caſt out more or leſs copiouſly at every ſtool. *The indications of cure*,* therefore, ſeem to offer themſelves plainly; nor indeed The curative indications.

* *The curative indications, &c.* Theſe ſeem to be; To clear the primæ viæ of their contents as ſoon as poſſible, and to take off the conſtriction of the colon; which are done by purging, emetics, and opiates, judiciouſly adminiſtered; but in order to prevent the miſchiefs which may ariſe from irritation in thoſe who have an inflammatory diatheſis in the habit, bleeding ſhould firſt be had recourſe to, and then gentle laxatives: for which purpoſe *tartar emetic* managed ſo as to prove purgative, is recommended. *Vomits* alſo are conſidered as a principal remedy, uſefully employed in the beginning, both with reſpect to the ſtate of the ſtomach and fever; but then they ſhould be often repeated, and made to paſs alſo by ſtool, or otherwiſe they are inefficacious. Glyſters may alſo be conveniently given, as they will aſſiſt the operation of the gentle purgatives where neceſſary. If the gripings are frequent and very ſevere, *ſemicupia* are uſeful, and *abdominal fomentations* applied for ſome time; and *bliſters* alſo on the lower belly, as they promiſe

Sect. 4. indeed have I judged that I had any thing more to do, than (1.) to make an immediate revulſion of theſe ſharp humours by bleeding, and afterwards to cool the remainder; and (2.) to evacuate them by purgatives.

The method of cure.

9. I therefore uſed the following method: upon being called in I immediately directed bleeding in the arm, and gave an opiate the ſame evening, and the next morning my uſual gentle purging potion.

miſe to be beneficial by aſſiſting in taking off the conſtriction of the colon. As it may be preſumed that acrimonious matters are preſent conſtantly in the ſtomach and inteſtines, demulcents, particularly the oleaginous ones, may be properly employed; vegetable and acefcent food is the beſt in general; ſome portion of *cream* is often allowable, and *whey* always proper: ſtill, though in the beginning ſweet and ſubacid fruits may be permitted, in the more advanced ſtages, on account of the prevalency of a morbid acid in the ſtomach, they ſhould be adminiſtered with ſome reſerve. When this diſeaſe is complicated with an intermittent fever, and is protracted from that circumſtance chiefly, the Peruvian bark may be adminiſtered, but not in the earlier periods of the diſeaſe.—Thus far Dr. Cullen.

However, I have ſeldom ſeen, in caſes which were curable, the method, as laid down by Dr. Akenſide in his Commentarium de Dyſenteria, prove abortive; which conſiſts in giving, after bleeding where neceſſary, and a vomit, ſmall nauſeating doſes of ipecacuanha every four or ſix hours, with a cordial ſaline mixture. Theſe generally promote a gentle diaphoreſis, abate the conſtriction of the colon, and ſuffer the offenſive matter to paſs through the inteſtines without much trouble: after the bowels are cleared, and the pain greatly abated, opiates are uſeful; and ſome of the aſtringent claſs of medicines, particularly the cortex Eleutheriæ and lignum Campechenſe: the former of which is thought to be ſpecific by ſome authors in this diſeaſe.

The vitrum antimonii ceratum has been highly extolled in dyſentery, but on account of the extreme uncertainty in its operation has gone out of uſe; nevertheleſs, where the other remedies fail, it ought to be tried. *W.*

Take

Chap. 3. A purging draught.

Take of tamarinds, half an ounce; the leaves of sena, two drams; rhubarb, one dram and a half; boil them together in water sufficient to leave three ounces of strained liquor, in which dissolve manna and solutive syrup of roses, of each an ounce: mix them together for a purging potion, to be taken in the morning early.

I commonly prefer this draught to an electuary made with a small quantity of *rhubarb*; for though this root be exhibited to evacuate choler and acrimonious humours, yet unless a proper quantity of *manna* or *solutive syrup of roses* be mixed with it to quicken its operation, it avails little in curing a dysentery. And because it is certain that the gentlest purgatives do sometimes increase the gripings, and occasion a general depression and disorder of the spirits, by the adventitious commotion they raise in the blood and humours during their operation, I therefore commonly give an opiate earlier than is usual after purging, *viz.* at any hour in the afternoon, provided it seems to have done working, in order to quiet the disturbance I have raised. I repeat the purgative twice more, interposing a day between each potion, and exhibit an opiate after every purge, at the time above mentioned; and direct it to be repeated morning and night on the intermediate days, in order to diminish the violence of the symptoms, and obtain a respite whilst I am employed in evacuating the peccant humour. The opiate I chiefly used was liquid *laudanum*, in the quantity of sixteen or eighteen drops in any cordial water for a dose.

10. After

Sect. 4.

Cardiacs, when to be given.

10. After bleeding and purging once I allowed some mild cardiac to be taken between whiles throughout the course of the disease, as *plague water, compound scordium water*, and the like, *e. gr.*

A cordial julap.

Take of the distilled waters of black cherries and strawberries, of each, three ounces; plague water, compound scordium water, and small cinnamon water, of each an ounce; prepared pearl, one dram and half; fine sugar enough to sweeten it, and half a dram of damask rose water to give it an agreeable taste: mix all together for a julap, of which let the patient take four or five spoonfuls, when faint, or at pleasure.

But I used these chiefly in aged and phlegmatic persons, in order to raise their spirits in some measure, which are much depressed in this disease by the violence of the stools. Their drink was *milk boiled with thrice its quantity of water*, or *the white decoction*, as it is called, made of *burnt hartshorn, and the crum of white bread, of each two ounces, boiled in three pints of water to two, and afterwards sweetened with a sufficient quantity of fine sugar*; and sometimes *posset drink*, or, where the loss of spirits required it, they drank cold, for their common drink, a liquor made by boiling *half a pint of canary, and a quart of spring water together. Their diet was sometimes panada, and sometimes* * broth made of lean

The proper diet and liquors.

* *Their diet was sometimes panada, &c.* Every thing should be drank warm, and, towards the conclusion of the disease, a glass of wine by itself, or mixed with water, as the stomach will bear it, is proper both to raise the spirits, and

lean mutton. I kept the aged more in bed, and allowed them a freer uſe of any cordial water they had been accuſtomed to, than was proper for children, or young perſons. This method exceeded all thoſe I had hitherto experienced in conquering this diſeaſe, which generally yielded to the third purge. Chap. 3.

11. *But if it proved ſo obſtinate** as not to give way to this treatment, I gave the former opiate every morning and evening, till it went quite off; and the more effectually to conquer it, I have ventured to give a larger doſe of *laudanum* than that above ſpecified, *viz.* twenty-five drops every eight hours, if the former doſe proved too weak to ſtop the flux. I likewiſe ordered a glyſter made of *half a pint of milk, and an ounce and half of* Venice *treacle*, to be injected every day, which is indeed an admirable remedy in all kinds of looſeneſſes. Nor indeed have I hitherto found the leaſt inconvenience from ſo frequent a repetition of opiates, (what ever miſchief unexperienced perſons groundleſſly apprehend) though I have known ſeveral who have taken them every day, for ſome weeks running, when the diſeaſe proved inveterate. How to be treated when it does not yield to theſe means.

and ſtrengthen the ſtomach and bowels. The diet may be nouriſhing broths acidulated with lemon juice, ſago, rice-gruel, or milk, mealy ſubſtances, ſalop, and the like.

* *But if it proved ſo obſtinate, &c.* When the ſtrength is much exhauſted in a dyſentery, or looſeneſs, by the frequent diſcharges accompanying theſe diſtempers, the patient is cachectic and conſumptive, a hectic heat, ſuffocation, grief, and wandering pains in the limbs ſucceeded, the evacuation is to be checked, ſtrengthening glyſters often injected, ſtrengthening topics applied to the ſtomach and *abdomen*, and proper internals exhibited at the ſame time to ſtrengthen all the parts.

Sect. 4. The cure of a looseness.

But it must be noted here, that when the flux amounts only to a simple looseness, omitting bleeding and strong purging, it will suffice to give *half a dram of rhubarb*, more or less in proportion to the strength of the patient, every morning, *made into a bolus, with a sufficient quantity of diascordium, adding to it two drops of oil of cinnamon*; and exhibiting an opiate the following evening, *v. gr.*

A paregoric draught.

Take of small cinnamon water, one ounce; liquid laudanum, *fourteen drops: mix them together.*

In the mean time use the diet above specified in the cure of the dysentery, and inject the glysters there commended every day, if there is occasion. —But this by way of digression.

An instance of the dysentery cured by this method.

12. Now to evince the excellence of the method here delivered by a single instance, for I will not trouble the reader unnecessarily with many: The Rev. Mr. *Belke*, chaplain to the Earl of St. *Albans*, being seized with a violent dysentery, during this constitution, sent for me to attend him, and was recovered by this method.

Children, how to be treated in this disease.

13. Children affected with this disease are to be treated in the same manner, but the quantity of blood to be taken away, and the doses both of the purgative and opiate, must be diminished in proportion to their age, so that, for instance, two drops of liquid *laudanum* is a sufficient dose for a child of a year old.

Our author's liquid laudanum described.

14. *The liquid laudanum* * which I constantly use, as above intimated, is prepared in the following simple manner:

Take

* *The liquid laudanum, &c:* Crude opium is much better than any of its preparations to be given, on account of the

Take of Spaniſh *wine, one pint; opium, two ounces; ſaffron, one ounce; cinnamon and cloves reduced to powder, of each one dram; infuſe them together in a bath heat for two or three days, till the tincture becomes of a due conſiſtence, and after ſtraining it off, ſet it by for uſe.* Chap. 3.

I do not indeed judge that this preparation is to be preferred to the ſolid *laudanum* of the ſhops on account of its virtues, but I gave it the preference for its more convenient form, and the greater certainty of doſing it, as it may be dropt into wine, a diſtilled water, or any other liquor. And here I cannot help mentioning with gratitude the goodneſs of the Supreme Being, who has ſupplied afflicted mankind with opiates for their relief; no other remedy being equally powerful to overcome a great number of diſeaſes, or to eradicate them effectually. And notwithſtanding there are perſons who endeavour to perſuade the credulous, that almoſt all the virtues of opiates in general, and of opium in particular, chiefly depend on their artful preparation of them, yet whoever puts it to the teſt of experience, and uſes the ſimple juice, as frequently

Its peculiar uſefulneſs.

Opium as effectual as any of its preparations.

the opportunity of certainly aſcertaining the doſe; but as it ſometimes is neceſſary to give it in a very ſmall quantity, ſome of the liquid preparations are unavoidable; but they ſhould be ſo formed, that they will diſſolve the whole portion of the opium preſcribed, and not ſuffer any depoſition. Dr. Swan thinks opium diſſolved in equal parts of wine and brandy, for this reaſon, the moſt eligible, which is certainly true; for a menſtruum thus compounded is capable of keeping both the gummous and reſinous parts in a ſtate of ſolution, if properly proportioned, and hence a tincture of equal ſtrength at all times will be obtained. *W.*

Sect. 4. quently and as cautiously as any of its preparations, will certainly find very little difference between them, and be convinced, that the wonderful effects of opium are owing to the native goodness and excellency of the plant that affords it, and not to the dexterity of the artist. Moreover, *this medicine is so necessary an instrument in the hands* * of a skilful person, *that the art of physic would* be defective and imperfect without it;

* *This medicine is so necessary, that the art of physic, &c.* That this is a noble remedy in judicious hands, cannot be denied; but still, as in those of the unskilful it may and does occasion great mischief, we shall give a brief account of its actions, from whence all its effects, good and bad, may be understood:

Its powers are stimulant and sedative; from whence proceed the following effects—first, a frequency of pulse, after which the body is sensibly warmed, generally with a redness and flushing of the countenance; while these effects proceed, a serenity of mind ensues, and a lively imagination, which, when it occurs, is almost constantly of the cheerful and pleasurable kind; to these, in particular persons, often succeed chagrin, irritability, and irascibility; by the time that these become remarkable, the senses appear imperfect, the imagination false, and directly a delirium takes place and intoxication: the imperfection of the senses proceeds to a total want of sensibility, which ends in stupor and an appearance of sleep; under this sleep the pulse is pretty constantly full and frequent, though varying in different persons: during the sleep a sweat takes place, while the other secretions are sensibly diminished; after this the person is awakened, and if no other stimulus takes place, he is attended with a sense of coldness and weakness: such is the series of the phenomena, which plainly points out a mixture of stimulant and sedative. From which mixture the whole may be explained; but they will vary in different persons according to the dose: first, the stimulant power is exerted on the heart and larger vessels, whence the frequency of the pulse, heat, and flushing; next it is exerted on the sensorium commune; and here it must content us to say, and it may be demonstrated, that a free flow through the

it; and whoever is thoroughly acquainted with its virtues, and the manner of using it, will perform greater things than might reasonably be expected from the use of any single medicine. For it must certainly argue unskilfulness, and a very slender knowledge of its virtues, to understand only to apply it in order to procure sleep, ease pain, and check a looseness, since it may be suited to several other purposes, and is in- Chap. 3.

the sensorium commune is always attended with serenity of mind, in opposition to chagrin, and that on the same free and equable flow depends the lively, the cheerful, and pleasurable imagination: these are the effects of the stimulant power, except such as proceed from it in a secondary way.

As the sedative power takes place, demonstrable changes follow, partly arising from the increased resistance in the sensorium commune, partly from the increased circulation, producing tone and irritation, partly from the imperfect sense and false imagination. It is difficult to give an account of the reason of gaiety and fullenness in different persons; and therefore it must be neglected. The sedative still mixing with the stimulant power, as in other cases, so here produces delirium, which here, beside the resistance given to the nervous power by the sedative, the stimulus still subsisting, is owing also partly to the false imagination. More directly owing to the sedative power are the stupor and sleep: during the sleep the fullness of the pulse is owing to the accumulation in the larger vessels, and the laxity induced in them, the frequency of the pulse to the stimulus of the opium still subsisting unsubdued by the sedative power: the same sedative power weakens the powers of sense and voluntary motion by weakening the energy of the sensorium. The secretions are diminished from the distance, except sweat, which depends on increased circulation.

From the sedative power prevailing arise languor, coldness, weakness, and head ach; if the stimulant power prevail, recurrence of fever, inflammation, and pain, especially if any other stimuli are urgent in the system.—Cullen's *Materia Medica*, pag. 332. *W.*

Sect. 4. deed a most excellent cardiac, not to say the only one hitherto discovered.

An excellent cordial.

15. The dysentery required in general to be treated in this manner: but it must be observed, that this dysentery was of a more spirituous and subtile nature the first year it arose, than that of the subsequent years, and therefore yielded less readily to purgatives, than to those medicines that diluted and cooled the blood; as well as the sharp humours separated from it into the intestinal duct. And therefore, during the first *autumn* wherein the dry gripes and dysentery prevailed, I always used the following method with success for both, till colder weather succeeded, when I found it less effectual, even in the same year; and in the following years, when the disease had lost much of its subtilty, and proved more humoural, it availed not at all.

The dysentery in the beginning of this constition, how best treated.

The method specified.

16. I proceeded in this manner: if the patient was young and feverish, I directed bleeding in the arm, and an hour or two after a large quantity of liquor to be taken, by way of diluting, according to the method I practised in the *cholera morbus*, except that here, instead of chicken water, or posset drink, I substituted whey to be drank cold in the same quantity as in that disease, but ordered the glysters to be injected warm, without the addition of sugar, or any other ingredient. I always found the gripes and bloody stools go off upon the discharge of the fourth glyster. This business being over, and all the whey evacuated, which, if the patient be expeditious, takes up only two or three hours, he was immediately put to bed, where he soon fell into a spontaneous sweat (occasioned by the mixture of the whey with the blood)

blood) which I ordered to be continued for twenty-four hours, but not at all provoked by medicine; allowing him nothing more than warm milk during this time, which he likewiſe uſed only for three or four days after he left his bed. If a relapſe happens, either from riſing too ſoon, or leaving off the milk diet too ſoon, the ſame proceſs muſt be repeated. Now if this method be certain and ſpeedy, no judicious perſon will reject it, becauſe it does not come recommended with a pompous multiplicity of remedies. Chap. 3.

17. That a fever, attended with ſuch ſymptoms as we have enumerated above, happens in thoſe countries, and at thoſe times, wherein the dyſentery prevails epidemically, and that the method of cure here delivered is agreeable thereto, is ſtill further confirmed by the teſtimony of Dr. *Butler*, who accompanied his excellency *Henry Howard*, ambaſſador from his *Britannic* Majeſty to the Emperor of *Morocco*, in *Africa*: this gentleman aſſured me, that the dyſentery raged at that time epidemically in that kingdom, as it always does; and that the fever accompanying it reſembled the fever above deſcribed, which he treated according to our method with conſtant ſucceſs, both at *Tangiers* and other places, whether the patients were *Moors* or *Engliſhmen*. Now neither of us was obliged to the other for this method, but being at ſo vaſt a diſtance, we both caſually fell upon the ſame. And he alſo informed me, that the method of diluting plentifully in the dyſentery ſucceeded admirably in thoſe parts; and indeed I conceive it reaſonable that this method ſhould be Cured by the ſame method in Africa.

Sect. 4. attended with greater success in that hot climate than in *England*.

An instance of its usefulness. 18. In the first autumn wherein this constitution prevailed, Dr. *Cox* being seized with a very acute dysentery, by my advice followed the above-mentioned method, whereby he was safely and expeditiously cured; for after the discharge of the fourth glyster, at which time I happened to be with him, the gripes and bloody stools vanished, and there was occasion for nothing further to complete the cure, except keeping his bed for the time above specified, and using a milk diet. And this gentleman afterwards recovered several by the same method at the close of autumn; but the following year, making trial of it again, he found it fail him.

How to be treated, when it proves lasting. 19. We have already taken notice, that when this disease runs on to a great length, it *often affects all the intestines gradually downwards*,* till at

* *It often gradually affects all the intestines downwards, &c.* It does not appear that this disease affects the intestines in this regular progression, gripings particularly about the navel, and tenesmus, are constantly the primary symptoms, which yielding, generally prove a termination to the disease: the last, however, will now and then continue troublesome for some time, from the abrasion of the mucus from the inner coat of the rectum, and upon that cause alone give great uneasiness at each evacuation, though they should be more feculent than dysenteric; in that case emollient fomentations are recommended to the anus, as well as vapours from decoctions of emollient and mucilaginous ingredients, starch glysters with opiates, &c. And should the intestines remain in a relaxed and weakened state from the foregoing indisposition, so that a diarrhœa is likely to continue from that cause, astringents and tonics may be now safely given, particularly the Columbo root, cortex Eleutheriæ, and log-wood; which last, Dr. Swan says, may be advantageously used,

at length it fixes in the *rectum*, with a continual inclination to go to ſtool, whereby only a *mucus* tinged with blood is diſcharged. In this caſe, Chap. 3.

uſed, when the diſtemper is accompanied with inflammation; but then it ſhould be obſerved, when local inflammation depends more upon the weakneſs of the veſſels of the parts affected, than on the increaſed circulatory powers, for in the latter caſe all aſtringents muſt do miſchief. From what has been ſaid relative to this diſeaſe, the cautions neceſſary to be obſerved in the management will be obvious; we ſhall therefore cloſe the account with inſerting the marks neceſſary to diſtinguiſh this from other complaints, with which it may now and then be confounded; theſe are *diarrhœa*, *cholera morbus*, *flux of the hæmorrhoids*, *hepatic flux*, and the *endemic diarrhœa* of Paris. *W.*

This diſeaſe differs from a *looſeneſs*, (1.) by being attended with more violent gripings, and a diſcharge of bloody, purulent, putrid, and extremely fetid matters; whereas what is voided in a looſeneſs is either ſerous, ſlimy, or bilious, but never bloody. From (2.) the *cholera morbus*, by its longer continuance, having no vomitings, unleſs in the beginning or ſtate, occaſioned ſometimes by an inflammation of the ſtomach, being epidemic, and catching, and attended with a more painful *teneſmus*. From (3.) a *flux of the hemorrhoids*, wherein pure blood is evacuated with advantage to health, by prevailing at a particular time of the year, being uſually accompanied with a fever, and a voiding of blood, very ſeldom pure, but mixed with purulent, frothy, fetid matter, whence ſevere griping, and a very painful *teneſmus*: the evacuation not affording any relief, but on the contrary, highly weakening and diſpiriting the patient. From (4.) an *hepatic flux*, where what is voided looks like the water wherein raw fleſh has been waſhed, and comes away without pain, by the very different appearance of the diſcharges, the violent gripings attending them, the preſence of a fever, and other bad ſymptoms. From (5.) that diſorder, conſiſting in frequent evacuations by ſtool, at firſt mucous, and afterwards tinged with blood, which is *endemic* at *Paris*, and ſeizes almoſt all foreigners, by being much more malignant, and likewiſe catching, accompanied with a fever, and occaſioning a far greater loſs of ſtrength and ſpirits. HOFFMAN.

Sect. 4. I conceive it would be uſeleſs to attempt the cure, either (1.) by any of the above-mentioned methods; (2.) by *detergent*, *agglutinant*, or *aſtringent* glyſters, which are ordinarily injected according to the different ſtates of the ſuppoſed ulcer; or (3.) by *fomentations*, *baths*, *fumigations*, and *ſuppoſitories*, ſuited to the ſame purpoſes. For it is apparent that this diſorder does not proceed from an ulcer of the *rectum*, but rather from this, that in proportion as the inteſtines recover their tone, they depoſit the remains of the morbific matter in this gut, which being continually irritated thereby diſcharges part of the mucous matter at every ſtool wherewith the inſide of the inteſtines is naturally covered. For this reaſon the part affected muſt be ſtrengthened to expel the ſmall remains of the morbific matter, as the other inteſtines have already done: and this purpoſe is only anſwered by ſuch medicines as ſtrengthen the body in general; for the application of any kind of topic to the part affected, being incommodious, will rather debilitate than ſtrengthen it. The diſeaſe therefore muſt be borne till the ſtrength can be recovered by a reſtorative diet, and the free uſe of ſome particularly grateful cordial liquor; and then the teneſmus will go off ſpontaneouſly in the ſame degree as the ſtrength returns.

Topics, why not to be applied.

It ſometimes continues for ſeveral years.

20. It ſometimes happens, though very ſeldom, that a dyſentery ill treated in the beginning afflicts a particular perſon for ſeveral years, the whole maſs of blood having obtained a kind of dyſenteric diſpoſition, whence the bowels are continually ſupplied with hot and acrimonious humours, whilſt the patient in the mean time con-

continues pretty capable of following his busi- Chap. 4.
neſs. I met with an inſtance of this lately in a woman who was perpetually afflicted with this diſeaſe during the three laſt years of this conſtitution; and as ſhe had tried abundance of medicines before applying to me, omitting other remedies, I only directed bleeding, and was encouraged to repeat it frequently at conſiderable intervals, as well from the colour of the blood, which reſembled that of pleuritics, as from the great relief the patient obtained by every bleeding; by which means ſhe at length recovered her former health.

21. Before I finiſh this particular is to be remarked, *viz.* that though in thoſe years wherein the dyſentery raged ſo epidemically, the above-mentioned evacuations were abſolutely neceſſary to be made before having recourſe to *laudanum*, yet in any conſtitution, which has a leſs tendency to this diſeaſe, they may ſafely be omitted, and the cure completed by the ſhorter method, namely, by exhibiting *laudanum* alone in the manner already delivered. And let this ſuffice for the dyſentery. When not epidemic, yields to *laudanum* only.

CHAP. IV.

Of the continued Fever of Part of the Year 1669, *and the Years* 1670, 1671, 1672.

1. AT the ſame time the *dyſentery* raged *a fever aroſe, which much reſembled*,* and often accompanied this diſeaſe: it not only attacked ſuch Origin of the fever of this conſtitution.

* *A fever aroſe, which much reſembled, &c.* SAUVAGES has claſſed this as a ſpecies of ſynochus, and named it, *ſynochus*

Sect. 4. such as were afflicted with the dyſentery, but thoſe likewiſe who remained wholly free from it, unleſs that ſometimes, though very rarely, the patient had ſlight gripings, ſometimes with and at other times without a looſeneſs; for it always had the ſame apparent cauſes with the dyſentery, and was attended alſo with the ſame ſymptoms as the fevers of thoſe who had the dyſentery; ſo that if we except the evacuation by ſtool in the dyſentery, and the ſymptoms thereon neceſſarily depending, this fever ſhould ſeem to be wholly of the ſame nature with that diſeaſe. And from henceforward, through the courſe of this conſtitution, it underwent the ſame change of ſymptoms with reſpect to its increaſe, ſtate, and declenſion, as generally happened in the dyſentery; I call it, therefore, the *dyſenteric fever*.

Its ſymptoms.

2. This fever, as we have ſaid, ſometimes began (1.) with mild gripings, eſpecially in the firſt years of its appearance, or they came on afterwards, but frequently none at all attended; (2.) the ſweats, which, as we obſerved above, were very copious in the fever of the preceding

nochus dyſenteroides.—Though Dr. Cullen approves not of the claſſification, and very rightly; for it by no means anſwers to the definition of that ſpecies of fever. From the ſeaſon in which it became epidemic, the ſymptoms, and from its termination, it appears to derive its origin from the ſame contagious miaſmata as the dyſentery, and differs from it only in not being attended with the ſame inteſtinal evacuation, but the morbid miaſmata affecting the ſyſtem in general;—and here we cannot avoid paying the tribute of praiſe due to the acuteneſs of our author's ſagacity, who happily diſcovered the ſimilarity of appearances, ſo as to lead him to this ſimple and certain mode of cure, in imitating nature ſo admirably and ſo ſucceſsfully. *W.*

conſtitution, were unfrequent and moderate in this; but (3.) the pain in the head was more violent here; (4.) the tongue, though it was white and moiſt as in the other fever, was covered beſide with a thick fur; (5.) this fever ſeldom went off by ſpitting, as the other uſually did; (6.) it was more ſubject to generate *aphthæ* in the declenſion, than either the former, or any other fever I had hitherto met with: for both this and the fever that ſucceeded the dyſentery, in the decline, generally depoſited a vitiated and acrid matter in the mouth and throat, whence this ſymptom aroſe in ſuch as had been much exhauſted by the inveteracy of the diſeaſe, and further debilitated by an over-hot regimen. In the ſame manner alſo were thoſe *aphthæ* generated, which happened at any time in ſtubborn dyſenteries, joined with a fever; eſpecially if, beſides uſing an hot regimen, the diſcharge by ſtools had been ſtopped by aſtringents, before the cauſe or fuel of the diſeaſe was expelled the veins by bleeding and purging. Chap. 4.

3. Theſe were the moſt certain ſigns of this fever, for the other ſymptoms varied every year according to the manifeſt qualities of the air, at certain times, and alſo according to the progreſs and different ſtates of the dyſentery. But that theſe particulars may be better underſtood, ſince by this contrivance eſpecially nature manifeſts her ſuperior power in the production of epidemic diſeaſes, we ſhall make a cloſer ſcrutiny into this matter. It ſhould therefore be obſerved that, though the manifeſt qualities of the air may not make ſo ſtrong an impreſſion upon a particular conſtitution, as to be the productive cauſes of the epidemic diſeaſes which are properly

Epidemics, how affected by the manifeſt qualities of the air.

Sect. 4. perly referred thereto; as these arise from some latent and inexplicable disposition thereof, yet they have a power over them for a time, and hence epidemics are admitted or excluded, as the manifest qualities of the air favour or oppose them. But the universal constitution remains precisely the same, whether these promote, or in some measure retard it.

4. Hence also it is, that when various epidemics happen in the same constitution, some particular disease shews itself chiefly in the season assigned it by the sensible qualities of the air; and at length yields to some other epidemic, which the different qualities of the subsequent season occasion. Hence it happens that the stationary fever, belonging to the epidemic of that year, of whatever kind it be, rages most violently in *July*, at the beginning whereof it attacks abundance of persons at once, but upon the approach of *autumn* abates considerably, and yields to the then reigning grand epidemic, which gives its name to the year; as every year sufficiently shews. For the body being heated by the preceding summer, the fevers, which are peculiar to the general constitution, easily attack at that time, but upon the coming in of *autumn* the grand epidemic again prevails, and these go off entirely.

5. But as the fevers arising in this month should be referred to the sensible qualities of the air, so also the various symptoms, which are quite foreign to their nature, in as much as they depend upon such a general constitution, are derived from the manifest qualities of the air happening in the same month. Hence it is that in those years wherein these fevers seize abundance of

of perſons in this month, they are attended with a variety of new ſymptoms, beſides thoſe which are peculiar to them as they proceed from the general conſtitution; and yet they ſtill continue the ſame, though by the unſkilful they are eſteemed every year as new fevers, on account of the diverſity of their concomitants. But theſe more peculiar ſymptoms continue only a few weeks, and the remaining part of the year only the proper ſymptoms appear; which accompany them as *ſtationary* fevers of ſuch a particular conſtitution. Chap. 4.

6. This clearly appeared in other fevers, but chiefly in this dyſenteric fever of *July* 1671 and 1672; the former of which at the decline was conſtantly attended with extreme ſickneſs, a vomiting of green choler, and a great tendency to a looſeneſs; and the latter with a pain in the muſcular parts of the body, eſpecially in the limbs, reſembling a rheumatiſm, and alſo an inflammation of the throat, but milder than in a quinſey: yet both theſe met in the ſame ſpecific fever, and both required the ſame treatment, for they differed only with reſpect to the ſenſible qualities of the air that prevailed at the time when theſe ſymptoms aroſe. But the ſudden and unexpected riſe of theſe fevers about the beginning of this month, and the new appearance of their peculiar ſymptoms for a time, though they neither differed in kind, nor in the method of cure required, for the fever that run through the whole year: theſe particulars, I ſay clearly ſhews how difficult it is univerſally to aſcertain the ſpecies of a fever from its concomitant ſign; though it may be ſufficiently known by carefully attending to other diſeaſes ariſing in the ſame year, Inſtanced in the dyſenteric fever.

The ſpecies of a fever, how beſt diſcoverable.

Sect. 4. year, and also to the peculiar symptoms of evacuation. A consideration likewise of the method or medicines to which it readily yields, greatly conduces towards discovering the species of the fever.

7. As to the other differences of the concomitant symptoms of *stationary* fevers they only regard the different times of the constitution; and upon this account are either violent or moderate as the symptoms of other epidemics, to which they belong, are either increased or mitigated.

8. But to resume our subject; this fever, which, as we have already observed, begun with the dysentery, prevailed equally with it, except that it went off for a little time, whilst the other epidemics of these years prevailed; yet it continued throughout this constitution, sometimes attacking more, and at others fewer persons.

The cure of the fever of this constitution.

9. With respect to the cure of this fever; having observed, as we said before, that the symptoms of that fever which affected abundance of those who had the dysentery, were manifestly the same with those which accompanied the solitary fevers of the current year, I judge it proper to attempt the cure by imitating in some measure the evacuation, which nature commonly uses in order to expel the sharp and corrosive matter, occasioning both the dysentery and the fever succeeding thereupon. And therefore I endeavour to cure this fever by the same method, both as to bleeding and repeated purging, which we have deduced more at large in treating of the cure of the dysentery; only I found that opiates, exhibited on the intermediate days, not only did no service, but proved detrimental, by detaining the matter which ought to have been dis-

discharged by purging, which happened otherwise in the dysentery. On the first days of the illness the patient lived on water gruel, barley broth, panada, and the like for diet, and drank warm small beer for his common drink; but after purging once or twice, it was needless to forbid chicken and the like food of easy digestion; as this method of cure by purging indulges the use of those things, which cannot be allowed if a different one be practised. The third purge, interposing a day between each, generally terminate the disease, but sometimes further purging was required. When the patient continued weak after the fever was gone off, and recovered slowly, which often happened in hysteric women, I endeavoured to strengthen them and repair the loss of spirits by giving a small dose of *laudanum*; but I seldom repeated this medicine, and never prescribed it till two or three days after the last purge. But nothing proved so effectual to recover the strength, and cheer the spirits, as the free use of the air immediately after the fever vanished. Chap. 4.

10. I received the first hint of this method of practice from the following case: In the beginning of this constitution, whilst I was solicitously endeavouring to discover the nature of this new fever, I was called to a young woman who was seized therewith, and had also a very violent pain in the forepart of the head, and the other symptoms, which, as we said, accompanied the dysenteric fever. Upon inquiring in what manner, and when the fever first seized her, she told me that she had the epidemic dysentery a fortnight before, which prevailed very generally at that time, and that as soon as Whence derived.

Sect. 4. as it went off, either ſpontaneouſly, or by the uſe of medicine, this fever with the pain in the head ſucceeded. Hence I conceived it would be proper, for both, to ſubſtitute another ſimilar evacuation in place of the dyſentery, upon the the ſtoppage of which the fever aroſe; and accordingly procured it by the method above recommended, to which indeed the fevers of this conſtitution readily yielded. For I was ever of opinion that ſucceſs alone is not ſufficient proof of the excellency of a method of cure in acute diſeaſes; ſince ſome are recovered by the imprudent procedure of unſkilful women, but that there was further required, that the diſtemper ſhould be ſo eaſily conquered, and yield, as it were, conformably to its own nature.—But this by the way.

11. In 1672, at the beginning of *June*, I was ſent for by the Earl of *Saliſbury*, who had this fever, accompanied with gripings and coſtiveneſs; and he was recovered by the method propoſed, which was the only one I had occaſion for whilſt this fever continued.

A *ſtupor* in this fever, how cauſed.

12. In young perſons, and ſometimes in thoſe who were a little more advanced in years, this fever at times ſeized the head, ſo that they became delirious, yet without raving, as thoſe who grow light-headed in other fevers do; *but were affected with a kind of ſtupor, nearly reſembling a carus.** This ſymptom chiefly happened in ſuch as

* *But were affected with a kind of ſtupor, &c.* Might not we be allowed to ſuppoſe, that in theſe caſes the morbid miaſmata had taken poſſeſſion of the brain, inſtead of flowing to the inteſtines, and thus produced their fatal effects? As our author confeſſes himſelf always unſucceſsful with

as unadvisedly exerted their utmost endeavours to promote sweat at the beginning of the disease. I was not so happy at that time as to be able to relieve such as were attacked with this symptom, though I left no method untried, and had recourse to all the medicines hitherto noted for this purpose. And let these particulars suffice for the fever of this constitution. Chap. 5.

CHAP. V.

Of the Measles of 1670.

1. IN the beginning of *January*, 1670, *the measles* * appeared as is usual, and increased daily till the approach of the vernal *equinox*, when The rise and progress of the measles of this constitution.

with patients thus affected, though he left no known means untried, it is to be lamented, that he has not informed us what were the means of which he made use; probably he tried the cooling regimen to excess, as he found this symptom chiefly arose in those on whom practitioners had exerted their utmost efforts to produce a sweat in the beginning of the disease. Dr. Swan conjectures, that as the use of blistering was not established in our author's time, and that he rarely administered medicines of the warm and volatile kind, that these were not applied so freely as they ought, or were entirely omitted; and hence attempts to account for the want of success. Nor is it at all improbable; for in cases of stupor there is generally a torpor of the nervous system, which requires rousing by powerful stimulants, such as blisters, volatile cordials, and nervous medicines, the application of which in the present practice often proves favourable to our wishes.—I have often seen this symptom removed by the application of blisters to the legs, warming cataplasms, and sinapisms to the feet, and the use of musk, camphor, and volatile salts given internally at the same time. *W.*

* *The measles appeared, &c.* This disease, so accurately described by our author, is the true inflammatory species,

Sect. 4. when it came to its height; after which it abated in the same gradual manner, and went quite off in *July* following. I intend to deliver an accurate history of this sort, so far as I was then enabled to observe it, because it seemed to be the most perfect in its kind of all those I have hitherto met with.

Its symptoms enumerated.

2. This disease arises and terminates at the times above specified. It chiefly attacks children, and especially all those who live under the same roof. (1.) It comes on with a chilness, shivering, and an inequality of heat and cold,

perfectly agreeing with the description of Dr. Cullen, who says, this disease

Is a contagious synocha or inflammatory fever, attended with sneezing, epiphora, and a dry, hoarse cough; on the fourth day, or a little later, small eruptions crowding together break out, scarce appearing above the skin, and after three days running into small scales like bran: it is divided into two kinds, the

First, called *rubeola vulgaris*, where very small, confluent, corymbose papulæ arise scarce perceptible above the skin; of which there are three varieties,

The *first*, where the disease is attended with more severe symptoms, and runs through its course more irregularly.

The *second*, where an angina accompanies it; and

The *third*, where it has, as observed by Dr. Watson, a putrid diathesis for its associate.

The Second, from Sauvages, called *rubeola variolodes*, is accompanied with distinct papulæ more prominent than the former above the skin.—Though Cullen doubts whether this can properly be referred to this place; not only because it greatly differs in the form of the papulæ, but, what appears of greater moment, it is for the most part free from the catarrhal symptoms so peculiar to the measles.—*Synopsis Nosologiæ Method.* vol. ii. pag. 136, 137. It is, however, the first, or the *morbilli regulares*, of which our author here treats, and is a disease arising from contagion sui generis, never affecting the same persons twice during their lives.—*W.*

which

which ſucceeded alternately during the firſt day; (2.) the ſecond day theſe terminate in a perfect fever, attended with (3.) vehement ſickneſs; (4.) thirſt; (5.) loſs of appetite; (6.) the tongue white, but not dry; (7.) a ſlight cough; (8.) heavineſs of the head and eyes, with continual drowſineſs; (9.) an humour alſo generally diſtils from the noſe and eyes, and this effuſion of tears is a moſt certain ſign of the approach of the meaſles; whereto muſt be added, as a no leſs certain ſign, (10.) that though this diſeaſe moſtly ſhews itſelf in the face, by a kind of eruptions, yet, inſtead of theſe, large red ſpots, not riſing above the ſurface of the ſkin, rather appear in the breaſt; (11.) the patient ſneezes as if he had taken cold; (12.) the eyelids ſwell a little before the eruption; (13.) he vomits; (14.) but is more frequently affected with a looſeneſs, attended with greeniſh ſtools: but this happens chiefly in children during dentition, who are alſo more fretful in this diſtemper than ordinary. The ſymptoms uſually grow more violent till the *fourth* day, at which time generally little red ſpots, like flea-bites, begin to appear in the forehead and other parts of the face, which being increaſed in number and bigneſs, run together, and form large red ſpots in the face, of different figures; but ſometimes the eruption is deferred till the *fifth* day. Theſe red ſpots are compoſed of ſmall red pimples, ſeated near each other, and riſing a little higher than the ſurface of the ſkin, ſo that they may be felt upon preſſing them lightly with the finger, though they can ſcarce be ſeen. From the face, where only they firſt appear, theſe ſpots extend by degrees to the breaſt, belly, thighs, and legs; but they

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They grow more violent till the fourth day.

Sect. 4. affect the trunk and limbs with a redneſs only, without perceptibly riſing above the ſkin.

And do not abate upon the eruption.

3. The ſymptoms do not abate here upon the eruptions, as in the ſmall pox; yet I never found the vomiting continue afterwards, but the cough and fever grow more violent, the difficulty of of breathing, the weakneſs of, and defluxion upon the eyes, conſtant drowſineſs, and loſs of appetite, perſiſting in their former ſtate. On the *ſixth* day, or thereabouts, the eruptions begin to dry, and the ſkin ſeparates, whence the forehead and face grow rough, but in the other parts of the body the ſpots appear very large and red. About the *eighth* day thoſe in the face vaniſh, and very few appear in the reſt of the body; but on the *ninth* day they diſappear entirely, and the face, limbs, and ſometimes the whole body, ſeem as if they were ſprinkled over with bran, the particles of the broken ſkin being raiſed up a little, and ſcarce cohering, ſo that as the diſeaſe is going off, they fall from all parts of the body like ſcales.

The diſeaſe uſually terminates on the 8th day.

4. The meaſles therefore generally diſappear *on the eighth day*,* when the vulgar, deceived by

* *On the eighth day, &c.* Dr. Swan ſeems to accuſe our author of a contradiction in this place; for, ſays he, we are told that the meaſles generally diſappear on the eighth day, and juſt above, that the eruptions diſappear entirely on the ninth. In examining the Latin edition I find no ſuch contradiction: Sydenham's words above this place are, OCTAVO *circiter die maculæ in facie evaneſcunt, & vix in reliquo corpore cernuntur*; NONO *vero nullæ ſunt prorſus, facie atque artubus quandoque & toto corpore quaſi farinâ conſperſis, &c.*—And here, *evaneſcunt itaque morbilli die fere* OCTAVO. By which we are to underſtand, that the meaſles diſappear on the eighth day, or thereabouts, and on the ninth the deſquamation takes place, the eruption having previouſly vaniſhed.

by the term of the duration of the ſmall pox, affirm, that the eruptions are ſtruck in; though in reality they have run through the courſe aſſigned them by nature, and they ſuſpect that the ſymptoms which ſucceed upon their going off, are occaſioned by their ſtriking in too ſoon. For it is obſervable that the fever and difficulty of breathing increaſe at this time, and the cough becomes more troubleſome, ſo that the patient can get no reſt in the day, and very little in the night. Children chiefly are ſubject to this bad ſymptom, which comes on at the declenſion of the diſeaſe, eſpecially if an heating regimen, or hot medicines have been uſed to promote the eruption; whence ariſes a peripneumony, which deſtroys greater numbers than the ſmall pox or any of its concomitant ſymptoms; yet notwithſtanding, if this diſeaſe be ſkilfully treated, it is in no ways dangerous. Theſe bad ſymptoms are likewiſe often followed by a looſeneſs, which either immediately ſucceeds the diſ- Chap. 5.

vaniſhed. Nor does it appear to me clear, that there is any difference between our author and Dr. Swan with reſpect to the time of the meaſles going off; though, from the Doctor's mode of expreſſion, it ſtrikes us as if he thought Sydenham wrong; for he ſays, "but the truth is, that the "eruptions vaniſh in four or ſix days from the firſt appear-"ance in moſt ſubjects." Sydenham is of the ſame opinion; he reckons from the beginning of the diſeaſe; Dr. Swan from the appearance of the eruption; and the eighth day, or thereabouts, is certainly the time of the diſappearance of the eruption generally allowed.—Dr. Cullen ſays, "the eruption generally appears on the fourth day; on "the face the eruption retains its redneſs, or has that in-"creaſed for two days, and in a day or two more the "eruption entirely diſappears, while a mealy deſquama-"tion takes place."—*Practice of Phyſic.—W.*

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eaſe, or continues ſeveral weeks after the diſeaſe and all its ſymptoms are gone off, with great danger to the patient, by reaſon of the continual waſte of ſpirits hence ariſing. And ſometimes alſo, after uſing an exceeding hot regimen, the eruptions turn livid, and then black; but this happens only in grown perſons, who are irrecoverably loſt upon the firſt appearance of the blackneſs, unleſs they be immediately relieved by bleeding and a cooler regimen.

Requires nearly the ſame method of cure with the ſmall pox.

5. As the meaſles in its nature nearly reſembles the ſmall pox, ſo does it likewiſe agree pretty much therewith in the method of cure which it requires: hot medicines and a hot regimen are very dangerous; though they are frequently uſed by unſkilful nurſes to drive the diſeaſe from the heart. The following method ſucceeded beſt with me. I confined the patient to his bed for only two or three days after the eruption, that the blood might gently breathe out the inflamed and noxious particles, that are eaſily ſeparable, through the pores, in a manner ſuitable to the nature of the diſeaſe; and allowed no more clothes nor a larger fire than he accuſtomed himſelf to when in health. I forbad all fleſh meats, and permitted water gruel, barley broth, and the like, and ſometimes a roaſt apple, for diet; and for drink, either ſmall beer, or milk boiled with thrice its quantity of water. To relieve the cough, which almoſt always attends this diſeaſe, I ordered a draught of ſome *pectoral decoction* to be taker between whiles, with a proper *linctus*. But I chiefly obſerved to give *diacodium* every night, the diſtemper throughout, *e. gr.*

The method deſcribed.

Take

Take of the pectoral decoction, a pint and half; ſyrup of violets and maiden-hair, each an ounce and half; mix them together for an apozem, to be taken in the quantity of three or four ounces, three or four times a day. Chap. 5. A pectoral apozem.

Take of oil of ſweet almonds, two ounces; ſyrup of violets and maiden-hair, each an ounce; fine ſugar enough to make them into a linctus, to be taken often in a ſmall quantity, eſpecially when the cough is troubleſome. A pectoral linctus.

Take of black-cherry water, three ounces; ſyrup of white poppies, an ounce: mix them together for a draught, to be taken every night. A quieting draught.

In children the doſe of the pectorals and opiate muſt be diminiſhed in proportion to their age.

6. *This method ſeldom fails of curing,** beſides being preventive of every other ſymptom, which Its excellence.

is

* *This method ſeldom fails of curing, &c.* It is rather ſurprizing, that Sydenham ſhould not order bleeding in the beginning or height of the diſeaſe, ſeeing that the inflammatory ſymptoms often run very high in theſe ſtages; nor aſſigned any reaſon why he omitted it, as it was an application of which he has ſhewn, in various inſtances, he was ſo very fond. Dr. *Mead* adviſes it even before the coming out of the puſtules, or when they are come out; and at the height, in order to prevent any inflammation affecting the lungs. Dr. CULLEN ſays, it may be employed at any time in the courſe of the diſeaſe, or after its ordinary courſe is finiſhed, and that more or leſs, according to the urgency of the ſymptoms of fever, cough, and dyſpnœa: but as ſymptoms of pneumonic inflammation ſeldom come on during the eruptive fever; and as this fever is ſometimes violent immediately before the eruption, though a ſufficiently mild diſeaſe be to follow, ſo bleeding is ſeldom very neceſſary during the eruptive fever, and may often be reſerved for the periods of greater danger, which are perhaps to enſue. Notwithſtanding which, in all caſes of meaſles, where there are no marks of putreſcency, and where there

Sect. 4. is not the neceſſary and unavoidable attendant of the diſeaſe: the cough is the moſt troubleſome one, which, however, is nothing dangerous till the diſeaſe be gone off; after which, if it ſhould continue a week or a fortnight, it may be eaſily cured by the uſe of the open air, along with proper pectorals; *and indeed it generally abates by degrees ſpontaneouſly*,* and at length ceaſes.

7. But,

is no reaſon from the known nature of the epidemic, to apprehend putreſcency, bleeding is the remedy to be depended upon: but aſſiſtance may be obtained from cooling purgatives, and particularly from bliſtering on the ſides and between the ſhoulders.—*Practice of Phyſic.*

Demulcent, oily, mucilaginous, or ſweet pectorals are recommended for the dry cough, to which the addition of nitre will be uſeful, which ſhould be gradually ſwallowed; as more benefit is derived from their ſheathing the fauces, than becoming any way corrective of acrimony.

In the exhibition of opiates, our author ſeems not to have been cautious enough, for there are many circumſtances occurring in this diſeaſe, wherein they may be hurtful. If the inflammatory diatheſis ſhould be greatly prevalent, the febrile ſymptoms, and conſtant difficulty of breathing, indicate an inflammation of the lungs exiſting; opiates, from their known power of heating the ſyſtem, and acting as ſtimulants on the heart and larger veſſels, muſt be improper; but at the latter end of the diſeaſe, when no ſuch ſymptoms appear in a ſtate of any violence, they may be ſerviceable in quieting the cough, and procuring reſt. In the caſe of looſeneſs, LASSONE's method, as before ſpecified when treating on the ſmall pox, may be had recourſe to. *W.*

* *And indeed it generally abates ſpontaneouſly by degrees, &c.* This ſymptom, or rather remnant, is often too dangerous to be left entirely to itſelf; for, from neglect it has often terminated in conſumption: and indeed for want of purging, of which our author has taken no notice, other miſchiefs are apt to enſue. Purging, indeed, and that repeatedly, after the deſquamation is finiſhed, has been thought by moſt phyſicians eſſentially neceſſary, in order to draw off any remains of morbific matter which may be left in the habit:—whilſt ſome, though they think it equally adviſeable, conſider

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The miſchief enſuing from a hot regimen and cardiacs after the diſeaſe is gone off, how remedied.

7. But, if by uſing cardiacs and too hot a regimen after the departure of the diſeaſe, the patient's life be endangered (which is a very common thing) by the violent fever, difficulty of breathing, and other ſymptoms that uſually afflict ſuch as have a peripneumony, I have with great ſucceſs ordered even the tendereſt infants to be blooded in the arm, in ſuch quantity as their age and ſtrength indicated. And ſometimes alſo, when the diſeaſe has been urgent, I have not feared to repeat the operation; and in reality, by bleeding, I have ſnatched abundance of children from imminent death. This diſorder attacks children upon the departure of the meaſles, and proves ſo fatal, that it may juſtly be eſteemed one of the principal miniſters of death, deſtroying greater numbers than the ſmall pox: nor have I hitherto diſcovered any other certain method of conquering it. Bleeding alſo cures the looſeneſs, which, as we ſaid, ſucceeds the meaſles; for as it ariſes from the *effluvia* of the inflamed blood, flowing into the inteſtines (as is likewiſe uſual in the pleuriſy, peripneumony, and other diſeaſes cauſed by inflammation) and irritating them to diſcharge their contents, this remedy alone will relieve; as it makes a revulſion of thoſe ſharp humours, and likewiſe reduces the blood to a due temper.

conſider its utility as taking off the inflammatory diatheſis which had been brought on in the ſyſtem by the preceding malady; and hence prefer bleeding, proportioned to the apparent ſymptoms. After theſe, aſſes milk, gentle exerciſe, and country air, will ſpeedily, under proper management, give ſtrength to the conſtitution, and again reſtore the patient to a ſtate of health. *W.*

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Bleeding, as safe in children as in adults.

8. Nor need any one be surprised at my bleeding young children, since, as far as I have hitherto been able to observe, it may be as safely performed in them as in grown persons. And indeed it is so necessary in the peripneumonic fever above mentioned, and in some other disorders to which children are subject, that there is no curing them without it. For instance: how are children to be relieved without bleeding during dentition, in the convulsions happening to them in the ninth or tenth month, accompanied with a swelling and pain in the gums, whence the nerves are compressed and irritated, and the fits also proceed? In this case bleeding only is vastly preferable to all the celebrated specifics yet known; some of which prove detrimental by their adventitious heat, and whilst they are supposed to cure the disorder by some occult quality, increase it by their manifest heat, and destroy the patient. Not to mention at present the great relief which bleeding affords in the *hooping cough* in children, in which it far exceeds all kinds of pectorals.

9. What has been said of the cure of those disorders which immediately succeed the measles, may sometimes also hold good when the disease is at the height, provided the symptoms be occasioned by an artificial heat; if I may be allowed to use the expression. In 1670 I attended a maid-servant of Lady *Anne Barrington*, who had the measles, joined with a fever, difficulty of breathing, purple spots over the whole body, and many other dangerous symptoms, all which I ascribed to the hot regimen and medicines which had been too freely used. I directed bleeding in the arm, and prescribed a cooling

A case related wherein it did service.

pectoral

pectoral ptisan to be taken often, by means of which, and a more cooling regimen, the purple spots and all the other symptoms went off by degrees. Chap. 6.

10. This disease, as above mentioned, began in *January*, and increased daily till the approach of the vernal equinox, after which it decreased gradually, and totally disappeared in *July* following, without returning again during the course of the years wherein this constitution prevailed, except that in the following spring it appeared in a very few places. And let this suffice for the measles.

CHAP. VI.

Of the anomalous or irregular Small Pox of the Years 1670, 1671, *and* 1672.

1. THE *measles*, as we said before, introduced a different sort of *small pox* from that of the preceding constitution. It arose much about the same time as the measles did, namely, in the beginning of *January*, 1670; and though it was not so epidemic, it notwithstanding accompanied that disease whilst it prevailed, and continued after it went off, as long as this constitution lasted. Nevertheless it yielded to the dysentery which raged in autumn; a season peculiarly disposed to favour it: but in the winter this kind of small pox returned again, the dysentery being overcome by the cold, which is an enemy to it. In this order did these distempers succeed each other through the whole term of years of this constitution, except that in the last

The rise and progress of a new kind of *small pox*.

Sect. 4. laſt *autumn* it prevailed, namely, in 1672, the conſtitution being then in its decline, and ſlowly promoting the dyſentery, which at that time was alſo declining. The ſmall pox, contrary to cuſtom, raged alſo at the ſame time, and prevailed ſo equally with the dyſentery, that it was not eaſy to aſcertain which of the two diſeaſes attacked greater numbers, but, as far as I could conjecture, the dyſentery ſhould ſeem to have been chiefly prevalent. Moreover, this ſort of ſmall pox alſo, like other epidemics, was very violent in the beginning, and increaſed daily till it came to the height, after which it decreaſed by degrees, both with reſpect to the violence of the ſymptoms, and the numbers attacked thereby.

2. But to ſet down its particular ſigns. I was much ſurpriſed upon the riſe of this ſmall pox, when I found that it differed in ſeveral conſiderable ſymptoms from the kind produced by the preceding conſtitution, which I had formerly obſerved with particular attention. At preſent I ſhall only treat of the ſymptoms that differ from thoſe of the other kinds, without taking notice of thoſe it had in common with that ſort of ſmall pox ſo fully deſcribed in the foregoing ſheets.

The ſigns of the diſtinct kind.

3. The diſtinct kind of this ſmall pox differed from the common diſtinct one of the preceding conſtitution, only in the following ſymptoms: (1.) The eruptions generally came out on the *third* day, which indeed is uſual in the confluent ſort, whereas in the diſtinct kind of the former conſtitution they appeared not before the *fourth* day; (2.) they did not grow ſo big in the courſe of the diſeaſe as thoſe of that kind, but

but (3.) were more inflamed, and in the declen- Chap. 6.
sion, after the suppuration, frequently looked black; (4.) sometimes, but very rarely, a spitting happened, as in the confluent kind, though the eruptions were very few: whence it appears that the small pox of this constitution greatly resembled the confluent kind, and was attended with a more violent inflammation than is usual in the distinct.

The signs of the confluent kind.

4. But the confluent sort of this constitution differed from those I had observed in other years in several particulars, which I shall here enumerate. (1.) The eruptions sometimes appeared on the *second* day, at others on the *third*, in form of an uniform reddish swelling, covering the whole face, and thicker than an *erysipelas*, nor could any spaces be easily perceived between the eruptions; (2.) the rest of the body appeared to be overspread with an almost infinite number of red, inflamed pustules, joined together in one; (3.) in the intermediate spaces whereof, especially in the thighs, little bladders arose, like those occasioned by burns, full of limpid *serum*, which ran plentifulty from them, upon the bursting of the skin; the flesh underneath appearing black, and as if it were gangrened. But this dreadful symptom happened very rarely, and only in the first month wherein this kind prevailed.

5. Amongst the rest who were thus grievously affected at this time, I was sent for, in the beginning of *January*, 1670, by Mr. *Collins*, a brewer, in St. *Giles*'s parish, to his son, an infant, who had bladders on his thighs as large as a walnut, and full of a transparent *serum*, which afterwards bursting, the flesh underneath appeared

Sect. 4. peared as it were quite mortified, and he died ſoon after; as did all thoſe I had ſeen attacked with this dreadful ſymptom.

6. (4.) About the *eleventh* day a white ſhining pellicle extended itſelf over the reddiſh ſwelling in ſeveral parts of the face, and by degrees over the whole; (5.) ſoon after it diſcharged a ſhining cruſty matter, not indeed of a yellow or brown colour (both which were obſervable in the other kind of ſmall pox) but of a deep red, like congealed blood, which, as the puſtules ripened, grew every day blacker, till at length the whole face appeared as black as ſoot: (6.) and whereas in the other kind of confluent ſmall pox the patient was in the moſt danger on the *eleventh* day, which put an end to the lives of the greateſt part of thoſe that died; in this ſort, unleſs an extreme hot regimen deſtroyed him in a ſhorter time, he generally lived till the *fourteenth*, and ſometimes to the *ſeventeenth* day, after which the danger was over. (7.) But it muſt be noted, that thoſe who had the fatal bladders with the mortification, which happened to ſome in the firſt month wherein this kind aroſe, as above related, died in a few days after the eruption.

7. (8.) The fever and all the other ſymptoms, which either proceeded or accompanied this ſort of the ſmall pox, were more violent than in the foregoing kind, and it had manifeſt ſigns of greater inflammation; (9.) the patient was more ſubject to a ſpitting; (10.) the puſtules were conſiderably more inflamed, and much ſmaller, ſo that it was difficult upon their firſt appearance to diſtinguiſh them from an *eryſipelas*, or the *meaſles*, unleſs that the latter certainly manifeſted itſelf by the day of the eruption, and other

other ſymptoms, above mentioned in the hiſtory of that diſeaſe; (11.) the ſcales remained a long time after the eruptions vaniſhed, and left more unſeemly ſcars behind them. It is well worth noting, that throughout the whole courſe of years which this conſtitution laſted, wherein the dyſentery raged ſo epidemically, the ſmall pox, when exaſperated by an immoderate hot regimen, ſometimes terminated in a dyſentery; as I more than once obſerved. Chap. 6.

8. But it is proper to obſerve, that this ſmall pox was not attended with ſuch fatal ſymptoms during the whole time of its continuance, for, after having prevailed two years, it began to grow milder in the third year, namely, in 1672, and the eruptions having loſt their blackneſs, grew by degrees yellow, like a honey comb, which is peculiar to the regular ſmall pox, during the ſuppuration of the puſtules, ſo that in the laſt year of this conſtitution it proved very mild and gentle, conſidering its kind. Nevertheleſs it is manifeſtly to be referred to a quite different kind, on account (1.) of the remarkable ſmallneſs of the puſtules, (2.) the tendency to a ſalivation, and (3.) other concomitant ſymptoms. The *ſmall pox* became more gentle in the third year.

9. Though our ignorance of the cauſes of every ſpecific difference be ſuch, as makes it impoſſible for us to comprehend wherein this ſmall pox differs from thoſe produced by the other conſtitution; yet to me it plainly appears, from the ſeveral concomitants, that this ſort was attended with greater inflammation than the other, and therefore that the whole of the cure conſiſts in giving a greater check to the violent ebullition of the blood. And this is chiefly The method of cure.

Sect. 4. chiefly effected by a temperate regimen, after exhibiting opiates as above directed; *e. gr.* allowing the free use of some liquor that is not heating, but will rather immediately abate the violent heat, which fatigues and parches the patient more in this than in any other disease, especially during the suppuration of the pustules. The *white decoction*, made of *bread and a little burnt hartshorn, boiled in a large proportion of water, and sweetened with sugar*, is beneficial here; but *milk boiled with thrice its quantity of water* is generally a more grateful liquor, and better answers the end of cooling; drinking plentifully is not only proper to diminish the extreme heat, which chiefly prevails during the *secondary fever*, but also promotes the salivation, and keeps it up longer than it could be continued, if the patient were over heated. And, farther, I have often observed that cooling liquors, drank plentifully, have succeeded so well, that by means thereof the small pox, which appeared at the beginning with the worst signs of the confluent kind, hath in the course of the disease been rendered distinct; and the eruptions, which, as they ripened, would otherwise have first discharged a red, and soon after a black matter, have looked very yellow, and, instead of being inflamed and very small, proved of a mild and good kind.

Advantages of drinking cooling liquors plentifully.

10. Nor does the menstrual discharge, which frequently happens to women in this disease, at all forbid, but rather encourage the free use of these liquors, especially if it comes at an unusual time. For all the danger here is left the blood, being too much attenuated by the excessive heat of the disease, should break through the

the veſſels wherever it can find a paſſage, eſpe- Chap. 6.
cially when unſkilful nurſes add oil to the flame, by uſing a hot regimen, and a decoction of *hartſhorn*, with *flowers of marigold*, &c. Now whatever greatly dilutes and cools the blood, inaſmuch as it checks this flux, does neceſſarily, though not immediately, tend to preſerve the eruptions, and the ſwelling of the face and hands in their due ſtate; whereas contrariwiſe, heating remedies, notwithſtanding they may ſeem better ſuited to this purpoſe, yet as they promote this diſcharge, they fall ſhort of anſwering the end. And I doubt not but abundance of women have periſhed by the miſtake of ſuch as had the care of them, who apprehending the ſinking of the eruptions from this diſcharge, have endeavoured to prevent it by a hot regimen and cardiacs, by which means the patient hath been certainly deſtroyed; though at the ſame time they ſolicitouſly endeavoured to ſtop the hæmorrhage, and keep the eruptions and ſwelling at the proper height, by mixing different aſtringents with the cardiacs.

11. I lately attended a lady, who had this dangerous black ſmall pox, and though I forbid every thing at the beginning that might agitate the blood, yet as ſhe was of a very ſanguine complection, in the flower of her age, and of a lively diſpoſition, and the weather at the ſame time very warm, ſhe was ſuddenly ſeized, on the third day after the eruption, with ſo copious a menſtrual diſcharge, at an unuſual time, that the women about her ſuſpected ſhe had miſcarried. Though this ſymptom was very urgent for ſeveral days, yet I did not therefore judge that the uſe of the milk and water

Exemplified in a caſe where the menſtrual diſcharge happened during the ſmall pox.

Sect. 4. water was to be discontinued, but rather esteemed it more necessary, and to be drank plentifully now, and likewise through the whole course of the disease, particularly upon the coming on of the *suppuratory fever*. At this time Dr. *Millington*, formerly my fellow collegiate, and now my intimate friend, was joined with me, who observing that every thing went on very well, according to the nature of the disease, readily consented that our patient should persist in drinking freely of the liquor above mentioned, which she often declared was particularly grateful to her, promoting the spitting, and both cooled and refreshed her. But when the face began to harden, and to be crusted over, we apprehended our patient would be injured by the putrid vapours proceeding from the purulent matter of the eruptions, which had a very fetid smell in this worst kind of small pox, and therefore directed a few spoonfuls of *mulled sack* to be taken once a day, or as often as she perceived any sickness at her stomach. And by the use of these few things, along with a *quieting draught* every night, she recovered, without having been seized with a *delirium*, or any other very dangerous symptom, except the hæmorrhage above mentioned. The face and hands swelled sufficiently, the eruptions were as large as this sort of small pox would permit, and the salivation was easy and copious to the end; and, lastly, though the eruptions in the face seemed blackish, whilst they ripened, yet they were yellow in most other parts.

Where unnecessary.

12. But how much soever the kind of small pox, peculiar to this constitution, exceeded those of other constitutions in point of heat and inflammation,

flammation, yet when the eruptions were distinct, or few, experience shewed it to be needless to drink so copiously of the above-mentioned liquors. But it sufficed if the patient drank small beer enough to quench his thirst, and supped water gruel and panada, and sometimes eat a roast apple, and (if he exceeded *fourteen*) took a dose of *syrup of white poppies*, when sick, or delirious for want of rest; and I did nothing more when the pustules were few, except keeping the patient in bed. By this method alone my son *William* was, by the blessing of God, recovered in this distinct sort of small pox, in *December* 1670. Chap. 7.

13. I shall add nothing more relating to the small pox of this constitution, as having treated of the other kind at large, from which the present only differs by being of a hotter and more inflammatory nature; whence it follows that more care was required in order to diminish the considerable heat, which was so natural to it, and so certainly threatened the destruction to the patient.

CHAP. VII.

Of the bilious Colic of the Years 1670, 1671, *and* 1672.

1. DURING all the years of this constitution, the blood was considerably disposed to deposite hot and choleric humours in the intestines, whence the *bilious colic* prevailed more than ordinary; which disease, though it should be reckoned amongst those of the chronic kind, and of course foreign to my purpose, yet as it *The bilious colic, why treated of here.*

Sect. 4. depended on the same indisposition of the blood at that time, from which most of the then prevailing epidemics arose, it should for this reason be treated of here; but especially because I perceived that the same febrile symptoms preceded it, which usually preceded the reigning *dysentery* of those times. And sometimes also this distemper, as above remarked, succeeded the dysentery, when it had continued a long time, and seemed to be going off. But when it did not succeed an inveterate dysentery, it generally arose from a fever, which afflicted the patient only for a few hours, and ordinarily terminated in this disease.

Its symptoms. 2. It chiefly attacked young persons of a warm and bilious constitution, especially in the summer season. (1.) A violent and intolerable pain of the bowels attends it, which sometimes seem to be tied together, and at others closely pursed up, and bored through, as it were, with a sharp-pointed instrument: the pain abates between whiles, but immediately returns again. (2.) In the beginning the pain is not so certainly fixt in one place, as in the progress of the disorder; (3.) the vomiting is less frequent, and the belly more easily moved by purgatives; (4.) but as the pain increases, it becomes more obstinately fixt in one place; (5.) frequent vomitings succeed, and the belly is more costive, till at length (6.) the excessive violence of the symptoms occasions a total inversion of the peristaltic motion of the guts (unless the patient be relieved sooner) and consequently an *iliac passion*, in which distemper all cathartics immediately become emetic, and glysters likewise, together with the *fæces*, are forced up the intestinal

teſtinal tube, and ejected by vomit. If the matter thus thrown up be quite pure, it is ſometimes green, ſometimes yellow, and ſometimes of an uncommon colour. Chap. 7.

3. *As all the ſigns of this diſeaſe clearly* * ſhew it to ariſe from ſome ſharp humour, or vapour, thrown The indications of cure.

* *As all the ſigns of this diſeaſe, &c.* Of this affection the proximate cauſe is ſimilar to that of the iliac paſſion, and indeed they may be conſidered as one and the ſame diſeaſe, only in different degrees. *See our note*, pag. 67.—Dr. Cullen defines the colic,

A pain of the abdomen, particularly in the umbilical region, running round the navel, attended with vomiting, and coſtiveneſs; of which there are ſeven ſpecies conſidered as idiopathic:

The firſt called colica ſpaſmodica, attended with a retraction of the umbilicus, and ſpaſms of the abdominal muſcles; and varies according to particular ſymptoms, either when a vomiting of feculent materials, or of thoſe things thrown into the rectum through the anus, is a concomitant, or when an inflammation comes on. Inſtances of the firſt we have in the *ileus ſpaſmodicus*, or *volvulus*; of the laſt in the *ileus inflammatorius*, or *colica phlogiſtica*.

The ſecond, *colica pictonum*; in which a ſenſe of weight, or an uneaſy ſenſation in the abdomen, particularly about the umbilicus, precedes; then comes on a colicky pain, ſlight at firſt, not continual, and increaſing particularly after eating; at length it becomes more violent, and almoſt conſtant, with a pain of the arms and back, terminating at laſt in a paralyſis; and has its varieties from the remote cauſe, as ariſing either from metallic poiſon, from acids internally, cold, or a contuſion of the back.

The third, *colica ſtercoria*; occurring in men of coſtive habits, after long coſtiveneſs.

The fourth, *colica accidentalis*; from acrimonious matter internally.

The fifth, *colica meconialis*; from a retention of meconium in new-born infants.

The ſixth, *colica calloſa*; this is attended with a ſenſe of conſtriction in ſome part of the inteſtines, often having flatulencies collected before it, and ſome degree of pain, which flatulence paſſing gradually through the ſtricture, vaniſhes;

Sect. 4. thrown off from the blood into the inteſtines; *I judge the primary indications of cure,** (1.) to conſiſt

a coſtive ſtate of bowels, and at length voiding only liquid fæces in ſmall quantity.

The ſeventh, *colica calculoſa*: when there is a hardneſs fixed in a certain part of the inteſtines; calculi having formerly been ejected through the anus.

To which are added a number of ſymptomatic colics.—See *Synopſis Noſologiæ Methodicæ*, vol. ii. pag. 235, &c.

But it is to the bilious colic we are here to confine ourſelves, which we think more fully, and more accurately deſcribed by SAUVAGES; who ſays, this diſeaſe attacks lively young men of hot conſtitutions; thoſe who are iraſcible, and make free uſe of ſpirituous liquors; alſo men of bilious temperaments, overheating themſelves in a hot ſummer, attended ſometimes with feveriſh affections, ſometimes not. The ſymptoms are a hoarſe voice, cardialgia, loathing of food, bilious, porraceous vomiting, hiccough, heat, thirſt, a bitter taſte in the mouth, the urine ſmall in quantity and deep coloured, with a coſtive ſtate of bowels in general, though not in all, for ſometimes there are frequent and bilious ſtools; but the pain oftener affects the ſmall bowels, as the duodenum; the abdomen is neither tenſe nor hot, as in the inflammation of the bowels; urine flows freely; the head is affected with vertigo; the pulſe neither hard, nor tenſe, though frequent, and is often ſucceeded by the jaundice.—*Noſologia Methodica*, vol. ii. pag. 102.

Dr. Swan ſays, "he knew a perſon in years, otherwiſe "ſubject to this diſorder, who, every time he put himſelf "in a violent paſſion, as certainly had a fit of it ſoon after; "in one of which he at length died in a few hours." When the bilious colic attacks with a ſhivering, and the pain is exceedingly violent, great danger attends it; an inflammation being denoted thereby, which, if not remedied, terminates in a mortification. *W.*

* *I judge the primary indications of cure, &c.* The indications here, and mode of cure in general, are ſimilar to what we delivered when treating of the iliac paſſion, pag. 67—69. hence unneceſſary to be repeated; we ſhall therefore only add, that in this ſpecies of colic, the drinking of cold water is highly beneficial, and often curative; and ſhould be uſed freely where there is no ſuſpicion of an attendant inflammation, and then its uſe muſt be prohibited; tepid liquids

fift in evacuating both the *antecedent* humour in the veins, and that contained in the inteſtines; and the next, (2.) in checking the great tendency of the humours to the parts affected, and eaſing the intolerable pain, by exhibiting opiates. Chap. 7.

4. In order hereto I bleed freely in the arm, if no blood has been taken away before, and in three or four hours after adminiſter an opiate. The next day I direct ſome lenient purgative, and order it to be repeated a ſecond time, at a day's interval, and ſometimes a third time, according as the remains of the humour ſeem to be more or leſs in quantity. But it muſt be obſerved, that if this diſeaſe proceeds, either from a ſurfeit of fruit, or any other kind of aliment of difficult digeſtion, whence depraved and corrupt juices are firſt received into the blood, and thence ſeparated into the inteſtines; in theſe caſes the ſtomach muſt firſt be well cleaned by drinking poſſet drink plentifully, and vomiting it up again, which being over, an opiate muſt be given, and a vein opened the next day, and, in other particulars, the proceſs above delivered is to be followed. The method of anſwering them. How to be cured if it proceeds from a ſurfeit.

5. But when the violence of the pain, and the vomiting, whence the inteſtines are in a manner inverted, do not yield to purgatives, they muſt be made ſtronger; for it avails not to exhibit a gentle cathartic, unleſs perhaps the patient be eaſy to work upon, which ſhould be carefully inquired into, becauſe ſuch a medicine, being too weak to make its way through the in- The purgatives when to be made ſtronger.

liquids are preferable to thoſe which are hot; which alſo may be ſaid of bathing: acidulated drinks may be freely uſed, particularly if the bile ſeems to partake of great degrees of acrimony. *W.*

Sect. 4. teſtinal tube, does more miſchief, the vomiting and pain being increaſed by its languid and ineffectual motion. A lenitive purging potion, made of an infuſion of *tamarinds*, *ſena*, and *rhubarb*, in which *manna* and *ſyrup of roſes* may be diſſolved, is to be preferred to other purges, becauſe it diſturbs and agitates the juices leſs.

An opiate, when to be given before a purgative.

But if this cannot be retained in the ſtomach, either (1.) becauſe the patient has an averſion to a liquid medicine, or (2.) by reaſon of the vomiting, recourſe muſt neceſſarily be had to pills, amongſt which I eſteem *pil. cochiæ* moſt, becauſe it operates beſt in this and moſt other caſes. But where either (1.) through the weakneſs of the ſtomach, or (2.) the vomiting, pills cannot be retained, I firſt preſcribe an opiate, and in a few hours after a purgative, at ſuch a proper interval, for inſtance, that the latter may not be overcome, and rendered ineffectual, but continue long enough in the ſtomach to communicate its purging quality thereto, ſo that it may at length operate immediately after the virtue of the opiate is gone off. However, if the caſe will admit, it is beſt to give the purge a conſiderable time after the opiate, becauſe it operates with difficulty, even twelve hours after the exhibition of the opiate.

One to be exhibited.

6. But becauſe a purge always increaſes the pain in this and moſt other diſeaſes where opiates are indicated, at leaſt when the operation is over, the patient ſometimes finding relief whilſt it works, I generally give an opiate immediately after it has done operating, and order it to be repeated daily morning and evening, on the intermediate days, that I may more certainly

eaſe

ease the pain, till purging has been sufficiently performed. Chap. 7.

7. When the affair of purging is over, I endeavour to check the violent motion of the humours, which is all that now remains to be done, by exhibiting an opiate every morning and evening, which must sometimes be repeated oftener: nor have I ever been able to ease very violent pains, without administering a larger dose than ordinary, and repeating it. For what might be sufficient to overcome another disease proves ineffectual in this; the violence of the pain destroying the force of the medicine. Opiates may be safely repeated whilst this kind of pain continues violent, but not after it ceases; for which reason I repeat the opiate in proportion to the violence of the pain, till it either goes quite off, or abates considerably; observing, however, to administer it at such convenient intervals, that I may know what effect is to be hoped for from the former dose, before I proceed to give another. But, in general, unless the pain be very severe, it will suffice to exhibit an opiate morning and night. My usual opiate then is *laudanum* above described; of which I give sixteen drops at a time, in some distilled cordial water; or the dose may be augmented occasionally, according to the violence of the pain.

To be given morning and night after the affair of purging is over.

8. This plain method, whereby (1.) the peccant humour is discharged by bleeding and purging, and then (2.) ease procured by means of opiates, has always succeeded better with me than any other I ever knew; whereas carminative glysters, injected in order to expel the sharp humours, prolong the disease by raising

Carminative glysters, bad.

Sect. 4. a disturbance in the juices. But I would have it particularly remarked here, that though I have affirmed that bleeding and purging must necessarily precede the quieting method, yet sometimes, when the case demands it, omitting both, the cure is to be begun with opiates. For instance; when by reason of some preceding illness, large evacuations have been used not long before the colic began; for frequently such as have recovered lately from some other disease, *are suddenly attacked with this, from a weakness of the bowels,** especially if a greater degree of heat be occasioned by too free an use of wine, or any spirituous liquor: now in this case I esteem it not only unnecessary but detrimental to raise fresh commotions, by giving more purges. Not to mention that the patient, in

When the cure is to be begun with opiates.

* *Are suddenly attacked from weakness of the bowels, &c.* From hence the bowels become very irritable, and thrown into spasmodic constrictions from any slight cause; bleeding and purging in these cases are very detrimental, as increasing the debility of the intestines; opiates are the most certain and safe remedy for relieving the uneasy sensations immediately, and occasionally, which ought to be succeeded by nervines and tonics, to give proper power to the intestinal canal; and riding on horseback will greatly conduce to the preventing a relapse: for nothing strengthens the viscera and intestines more than this species of exercise, which should be taken when the bowels are in their most empty state, or when the business of digestion is somewhat advanced. Its use arises from the repeated gentle agitation given to these parts, which are calculated to remove visceral obstructions, promote the circulation of the blood, clear away viscidities from the bowels, determine the fluids to the surface of the body, and increase perspiration. Dr. Huxham had an high opinion of this remedy, and says, where tedious courses of medicines have failed, in some chronic diseases, riding only has performed a cure; hence advises, when a patient can sit on horseback, that he should have daily recourse to this exercise. *W.*

this

this diſeaſe, has generally cleanſed his bowels ſufficiently, by the frequent uſe of glyſters, before applying to a phyſician; ſo that partly upon this account, and partly by reaſon of the long continuance of the diſeaſe, it ſhould ſeem that only opiates ought to be exhibited. Chap. 7.

9. In *Auguſt*, 1671, I was ſent for to *Belvoir* caſtle by Lord *Anneſley*, who had been afflicted for ſome days with a bilious colic, attended with exquiſite pain, and frequent vomiting. He had tried all kinds of glyſters, and other remedies directed by the neighbouring phyſicians: I immediately adviſed the repeated uſe of opiates in the manner above delivered, and by this means he recovered in a few days, and returned to town with me in good health. Exemplified in a caſe.

10. As this pain of its own nature is more apt to return than any other, all occaſion of relapſe is to be prevented by exhibiting an opiate twice a day for ſome time. But if it ſhould return upon omitting the opiate, as it ſometimes happens, I have hitherto diſcovered nothing that will ſo certainly promote the cure, as taking long journeys on horſeback, or in a coach, obſerving in the mean while to give an opiate every morning and evening. For by this kind of exerciſe the morbific matter is brought to the habit of the body, and the blood, broken and divided by the continual motion, does, as it were, undergo a new depuration, and at length the bowels are greatly ſtrengthened and refreſhed by this way of rouſing the natural heat. Nor do I think it beneath me to own that I have frequently cured this diſeaſe by this exerciſe, when all other means had failed me. But this muſt not be attempted, unleſs ſufficient evacuations have been previ- Riding on horſeback excellent to promote the cure.

Sect. 4. previouſly made, and is to be perſiſted in ſeveral days afterwards.

Inſtanced in a caſe.

11. During theſe years one of my poor neighbours, yet living, was ſeized with a moſt violent bilious colic, which he had long endeavoured ineffectually to relieve by cathartics, glyſters, and ſwallowing leaden bullets, I had recourſe here to the frequent uſe of opiates, nor did they prove unſucceſsful, for he remained tolerably eaſy whilſt he was taking them. But perceiving they only palliated, and did not eradicate the diſorder, for it returned immediately after the effect of the opiate was gone off, I had compaſſion on the man, labouring under low circumſtances, and a violent diſeaſe, and lent him a horſe to ride a long journey, as above directed; and after riding a few days, his bowels became ſo ſtrong as to be able to expel the remains of the diſeaſe, and he recovered perfectly by this means without the aſſiſtance of opiates.

12. And, to ſpeak the truth upon this occaſion, I have always known this kind of exerciſe uſed with great ſucceſs, not only in this caſe, but in moſt other chronic diſeaſes, provided it were reſolutely perſiſted in. For if we conſider that the lower belly, wherein all the ſecretory organs are ſeated, is greatly ſhook by this exerciſe, perhaps ſome thouſand times a day, we ſhall readily believe that they are hereby enabled to ſhake off any groſs ſizy humours fixed there; and (which is ſtill more material) ſo ſtrengthened by this powerful rouſing of the natural heat, as to be able to perform the function of purifying the blood, aſſigned them by nature, in a proper manner.

13. For

13. For young persons of a hot constitution, I direct a cooling incrassating diet; for instance, barley, cream, panada, &c. and a small chicken, or a boiled whiting, every third day, if the appetite continues craving, and I allow no other liquor than small beer, or milk boiled with thrice the quantity of water for drink; unless riding, which is necessary to complete the cure, requires a more nourishing diet and the use of some more generous liquors, to recruit the loss of spirits occasioned by exercise. Chap. 7. The regimen in this disease.

14. Moreover it is manifest from observation, that when this disease through wrong management proves of long standing, so that the bowels become weak, and the patient is extremely emaciated and debilitated, the free use of *plague water*, AQUA MIRABILIS, or any other cordial that was most grateful to him when in health, relieves at this time beyond expectation. For by this means the small remains of the natural heat and spirits are roused, and the preternatural ferment lodged in the bowels, which occasions fresh fits between whiles, will be stopt. Cordials to be given, when it proves inveterate.

15. *The slender diet abovementioned* * must be continued. A slender diet to be continued for some time after the cure.

* *Slender diet must be continued, &c.* This should be observed after all diseases, where the constitution has been debilitated, and the digestive powers rendered extremely weak; but perhaps in this case its observance is more essentially necessary, as the organs of the first digestion have suffered so materially, and an error in diet so likely to occasion a return of the disease.

Spirit of nitrous æther has been held by some authors extremely serviceable through the whole course of this disease, as it quenches thirst, promotes the natural secretions, expels flatulencies, moderately strengthens the stomach, is antiseptic, promotes urine, loosens the belly in hot dispositions, and checks diarrhœas from the acrimony of

Sect. 4. continued, not only through the courſe of the cure, but for ſome time after the diſeaſe is gone off; for it is more apt to return than any other, and beſides is ſeated in the principal inſtruments of concoction, which are the bowels, already weakened thereby, the leaſt error of this kind will immediately occaſion a relapſe. And therefore all aliment of difficult digeſtion muſt be carefully avoided, both in this and all other diſorders of the bowels, and food of eaſy digeſtion uſed very ſparingly.

The *hyſteric colic* deſcribed.

16. Some women are afflicted with *an hyſteric diſorder, ſo nearly reſembling the bilious colic** in (1.) the

of the bile; and allays vomiting ſometimes, where the ſaline mixture fails. HOFFMAN conſiders nitre, either given alone, or joined with carminatives, an excellent remedy, eſpecially in the bilious colic; for if the bile is vitiated by a congeſtion of acrid ſordes retained in the humours, it acts like poiſon by irritating the nervous ſyſtem, and producing præternatural heat, anxiety, inquietude, enormous evacuations, and intenſe pains: in order, therefore, to correct its peccant ſtate, *nitre* is eſteemed one of the moſt efficacious remedies.

If, however, when the diſeaſe is conquered, ſhould the ſtomach and bowels be left in a weak and relaxed ſtate, nothing can contribute ſo ſpeedily and effectually to invigorate thoſe parts, and reſtore them to an healthful tone, as the waters of Bath. *W.*

* *An hyſteric diſorder, ſo nearly reſembling the bilious colic, &c.* The modes of cure being ſo very different in theſe diſeaſes, an exact diſcrimination becomes particularly neceſſary. The *colica hyſterica* of SAUVAGES nearly agrees with this, and ſeems only to differ with reſpect to the ſeat of the affection; that of SYDENHAM being in the ſtomach; that of SAUVAGES in the inteſtines, which he thus deſcribes:

The hyſteric colic is a violent pain in the inteſtines, receding even on the ſlighteſt ſtroke, returning at intervals, and ſuddenly, without any evident cauſe; which leaves, after the abatement of the pain, an extreme tenderneſs of the parts, and ſoreneſs on touching, and which alternates with

the ſharpneſs of the pain, (2.) its ſeat, and (3.) the yellow and green colour of the matter diſcharged by vomit, that I will treat of it by the way, for fear it ſhould be taken for the diſeaſe juſt mentioned. Chap. 7.

17. Females, (1.) of a lax and groſs habit of body are chiefly ſubject to it, as are (2.) likewiſe ſuch as have formerly had ſome hyſteric indiſpoſitions, or (which frequently happens) thoſe who have juſt recovered of a difficult labour, occaſioned by the largeneſs of the infant, whereby the mother's ſtrength and ſpirits were nearly exhauſted. (1.) It attacks the region of the ſtomach, and ſometimes the parts juſt below it, with as violent a pain as accompanies the colic, or iliac paſſion; which (2.) is ſucceeded by exorbitant vomitings, ſometimes of green, and ſometimes of yellow matter; (3.) and to theſe ſymptoms, as I have frequently obſerved, ſucceed a greater lowneſs of ſpirits and deſpondency than occur in any other diſeaſe. The pain goes off in a day or two, but returns again in a few weeks after, and rages with as much violence as ever, before the fit terminates. It is ſometimes attended with a remarkable *jaundice*, which vaniſhes ſpontaneouſly in a few days. When the ſymptoms are all gone off, and the patient ſeems pretty well recovered, the leaſt diſturbance

What women moſt ſubject to it.

Its ſymptoms.

with dimneſs of ſight, ſyncope, and dejection of mind; in this diſeaſe, as in the hyſteric gaſtrodynia, greeniſh materials are not ejected upwards, but by ſtool; but this is a ſign of a particular ſpecies, becauſe the extreme pains of the abdomen may not in the leaſt tend to promote theſe evacuations, and may invade ſometimes ſuddenly one, ſometimes another part of the abdomen.—*Noſologia Methodica*, vol. ii. pag. 105.—Dr. Cullen conſiders it only as a ſymptomatic colic.—*W.*

of

Sect. 4. of mind, whether proceeding from anger or grief, to both which women are extremely subject in this case, is apt to occasion a relapse. Walking also, or any other exercise used too soon, will do the same; such causes being productive of vapours in lax and weak constitutions. I use the term *vapours* with the vulgar, but whether they be vapours, or convulsions of particular parts, the appearances may be equally accounted for.

A relapse, how occasioned.

Vapours artfully resemble most diseases.

18. When these *vapours* or convulsions attack any particular part of the body, they produce such symptoms as are natural to the part affected; whence, though they every where constitute the same individual distemper, yet they artfully resemble most diseases incident to mankind; as plainly appears from the disease under consideration, which exactly counterfeits the bilious colic, when it attacks the parts adjacent to the *colon*. And this is equally manifest also in many other parts of the body affected with this disease. For instance, *it sometimes attacks one of the kidnies with a violent pain*,* occasioning excessive vomiting;

* *It sometimes attacks one of the kidnies, &c.* A case of this sort I was called to in a young gentleman at Bromley in Kent, who had been affected with violent pains in the kidney for some weeks, and which were concluded by his attendants to arise from a stone fixed there. He was repeatedly bled, purgative and oleaginous medicines had been given him, but without any relief; indeed he was reduced so extremely low, that his life was by his friends despaired of. When I saw him, I found him much enervated, his complection very pale, his water limpid; he was oppressed with a thousand fears, and so irritable, that on the slightest occasions his pulse perceptibly altered. His removal to town was immediately necessary, which appeared to himself and attendants impossible; however, on giving him twenty drops of liquid laudanum, which was once repeated in three hours,

ing; and being frequently conveyed through the ureters, it counterfeits the ſtone, in which caſe, the pain being increaſed by glyſters, and other *lithontriptic* medicines uſed to bring away the ſtone, it continues with the ſame violence for a long time, and ſometimes deſtroys the patient contrary to its nature, as being of itſelf not dangerous. I have alſo known it occaſion a train of ſymptoms exactly like thoſe of the ſtone in the bladder. I was called up lately in the night to a Counteſs in the neighbourhood, who was ſeized, on a ſudden, with a very ſevere pain in the region of the bladder, along with a ſtoppage of urine; and having learnt that ſhe was ſubject to various hyſteric complaints, I conjectured that the diſorder was miſtaken; and therefore forbid the injecting a glyſter, which her woman had got ready, as apprehending it might be augmented thereby; and inſtead of this and the emollients brought by the apothecary, ſuch as the *ſyrup of marſh mallows*, &c. I adminiſtered an opiate, which ſoon removed the complaint. In reality, no part of the body, either external or internal, is quite free from the attacks of this diſtemper, as the jaws, hips, and legs, in all which it cauſes intolerable pain, and when it goes off, leaves ſuch a tenderneſs of the part behind that it cannot bear the touch, as if the fleſh had been bruiſed with abundance of ſtripes.

Chap. 7.

A caſe wherein they counterfeited the ſtone.

hours, he felt himſelf totally freed from pain, and ſo recovered in general with reſpect to his ſpirits, that he undertook and performed his journey with infinite eaſe, and was in a little time perfectly cured of that complaint by bark joined with other nervous medicines; opiates and aperients being given occaſionally, for his habit was naturally coſtive. *W.*

19. Ha-

Sect. 4. 19. Having now, by way of digreſſion, communicated ſome remarks belonging to the hiſtory of the *hyſteric colic*, to prevent its being taken for the *bilious colic*, I will briefly treat of ſome other particulars relating to the cure of the ſymptom of pain attending it: for the *radical* cure of the diſeaſe itſelf, which is affected by removing the cauſe, is a quite different ſubject, and to be conſidered in another place.

The pain in the *hyſteric colic* generally increaſed by bleeding and purging.

20. Bleeding and repeated purging, which are ſo manifeſtly indicated in the bilious colic, at the beginning, ſhould be omitted here, except in the caſe hereafter to be mentioned. For experience ſhews, that the pain and other ſymptoms are increaſed by the diſturbance cauſed by theſe evacuations, and I have often obſerved, that the repetition of the gentleſt glyſters hath occaſioned a continued train of ſymptoms. For if we take a view of the cauſes whence this diſeaſe generally proceeds, both reaſon and experience teach that it is rather owing to irregular motion of the ſpirits, than to any depravity of the juices. Now theſe cauſes are either (1.) copious and preternatural hæmorrhages, (2.) inordinate paſſions of the mind, (3.) violent exerciſe of the body, and the like; in all which, ſuch medicines as increaſe the hurry of ſpirits are improper, and opiates are to be exhibited in their ſtead, though the green and ill colour of the matter ejected by vomit ſhould ſeem to indicate the contrary. For the conſideration of colour is of too ſubtle and refined a nature to authorize ſuch evacuation as experience proves to be detrimental. And I doubt not but this diſeaſe, which, though it be very painful, does no way endanger life, hath proved fatal to abundance of perſons, through miſtakes of this kind.

To

To this may be added, that though the ſtrongeſt emetic be given to day, in order to expel the ſuppoſed cauſe of the diſeaſe, yet the patient will next day vomit a matter, full as green or of ſome other bad colour, like the former. Chap. 6.

21. But it muſt be obſerved, that ſometimes there is ſuch a foulneſs of blood and juices, as reſiſts the operation of an opiate ſo powerfully, that, notwithſtanding it be very frequently repeated, it avails not to quiet the diſturbance, unleſs bleeding or purging precede; as I have remarked in women of a very ſanguine conſtitution and robuſt make. This being the caſe, one or other of theſe remedies, and perhaps both, muſt be previouſly uſed, in order to make way for the opiate, a moderate doſe whereof will then produce the intended effect; though before bleeding or purging, the largeſt doſe availed not. But this is a caſe that ſeldom happens, and theſe remedies are not then to be repeated. Theſe particulars being premiſed, where there is a demand for opiates, we are to proceed in adminiſtering them according to the method ſpecified in treating of the *bilious colic:* and they are to be repeated, in point of frequency, in proportion to the abatement of the pain. This method indeed is only adapted to relieve the preſent ſymptom of violent pain; for I have not undertaken to treat of that, in this place, which removes the cauſe of the diſeaſe. Yet ſometimes they are neceſſary, and where.

22. But as this diſtemper, both in hypochondriac and hyſteric ſubjects, (for the reaſon is the ſame in both, as we ſhall ſhew in another place) *often terminates in a jaundice,** which increaſes propor- It often ends in a *jaundice.*

* *Often terminates in a jaundice, &c.* This is the *aurigo hyſterica* of SAUVAGES, and the *icterus ſpaſmodicus* of Dr. CULLEN,

Sect. 4. proportionally as the original diſorder goes off, it muſt be remarked, that in curing this kind of jaundice, all purgatives are either wholly to be refrained, or none exhibited, except *rhubarb*, or ſome other gentle lenitive; for it is to be apprehended that a new commotion may be occaſioned by purging, and conſequently a return of the ſymptoms. In this caſe therefore it is more expedient to give no medicines at all, as the jaundice ariſing from this cauſe abates by degrees ſpontaneouſly, and totally vaniſhes in a ſhort time. But if it continues long, and ſeems to go off ſlowly, we muſt have recourſe to medicines. I commonly uſe the following:

The cure of it.

An aperient apozem.

Take of the roots of madder and turmeric, each an ounce; the roots, together with the leaves of the greater celandine, and the tops of the leſſer centaury, each an handful; boil them in equal quantities of Rheniſh *wine, and ſpring water, to a quart; to which, when ſtrained off, add two ounces of the ſyrup of the five opening roots: mix them together for an apozem, of which let the patient take half a pint warm, every morning and night, till the cure be completed.*

The cure of an original jaundice.

23. *But where the jaundice comes of itſelf,** without being preceded by the colic, beſides the altera-

CULLEN, diſtinguiſhed by its coming on after ſpaſmodic diſeaſes, and mental affections. This generally goes off ſpontaneouſly in a few days, and ſeldom requires the application of any remedies; but ſhould it continue, the large doſe of ſuch a nauſeating compoſition preſcribed by our author, or that ſupplied by Dr. Swan, is extremely unpleaſant. Soap and rhubarb, joined with ſome of the ſtimulating antiſpaſmodic gums, given in the form of pills, will generally anſwer every purpoſe. *W.*

* *But where the jaundice comes of itſelf, &c.* Our author here has given no account of the jaundice, and has treated

alteratives just set down, such medicines must be given once or twice, as evacuate the bile by stool, before Chap. 6.

treated the cure in a very superficial manner; for the disease itself will neither be known, nor always cured in those cases which are within the reach of art, by what is here recited. The attempt to supply his defects will therefore be useful. The jaundice then is made manifest by a yellow colour of the skin and eyes, clay-coloured fæces, deep red-coloured urine, which will tinge a white linen cloth immersed therein of a yellow colour. Its proximate cause is obstruction of the ductus communis choledochus, occasioned generally by viscid or concreted bile; or from spasm affecting the duct, or duodenum; or from some contiguous tumour: by which means the secreted bile is re-absorbed and diffused over the whole of the system, or it may regurgitate in the ducts themselves, and pass immediately into the vena cava. To the symptoms above recited, we may add, that there is sometimes a pain felt in the epigastric region, often attended with vomiting. Sometimes also there are febrile affections, accompanied with a full, hard, and frequent pulse.

The most common cause of this disease is most generally concluded to be biliary concretions formed in the gall bladder, passing into the ductus communis, and there remaining unable to force their way into the duodenum; and there can be little doubt but thick viscid bile, causing similar obstruction, produces the same effect. In either of these cases, if there is the appearance of plethora in the habit, bleeding is necessary, and such remedies as will open the obstruction; for which purpose, after purging once or twice, vomiting is useful, and that may be repeated, administering intermediately saponaceous, aperient medicines, such as soap, rhubarb, aloetics, calomel, taraxicum, and sal diureticus; in cases of viscid bile these will almost always be sufficient: but where bilious concretions are to pass, opiates may be administered also, in order to assist in relaxing the duct, and promoting their exit. Though vomiting in this species may be useful, it must be cautiously produced, for if it procures not the passage of the concretion, it may be disserviceable, should it be violent; the gentler emetics should therefore only be administered. And in this respect Dr. Cullen prudently advises, that when, from the long continuance of the disease, we shall have reason to suspect the calculus is large, or more especially when the pain attending

Sect. 4. before the patient begins with the apozem above prescribed, and once a week afterwards, whilst it is continued,

A purging bolus.

Take of the electuary of the juice of roses, two drams; rhubarb finely pulverized, half a dram; cream of tartar, a scruple; syrup of succory, with rhubarb enough to make them into a bolus, to be taken betimes in the morning, drinking after it a glass of Rhenish *wine.*

tending the disease creates an apprehension of inflammation, vomiting should be altogether prohibited. Strong purgatives here can seldom be proper, nor, indeed, those of the milder class, only to prevent the body from being costive. When pain is an attendant circumstance, fomentations of the epigastric region are singularly serviceable, as the relaxation of the skin contributes to relax the whole system, and particularly to relieve the constriction of the subjacent parts.—*Practice of Physic*, vol. iv. pag. 446.

Ætherial oil of turpentine has been considered by some as a solvent of these concretions, whilst in the machine. One case which I saw seemed to favour this opinion—Mr. Robinson, a butcher, of York, whom I attended with Dr. Hunter, a principal physician of the same place, was afflicted with the jaundice, which yielded not to the common remedies; he took then the ætherial oil, suspended with the yolk of an egg, in a mixture, and after three or four days continuance, there was the appearance of bile dissolved, as if in an oily menstruum, floating upon the surface of one of his alvine evacuations; after which he recovered daily.

If an hæmorrhage attends, the cafe is always replete with great danger, for it is an indication of the blood's being in an acrimonious state, and its texture broken. Aloetics and attenuants must give place here to acids and demulcents; amongst which, the oleum Ricini formed into an emulsion, and decoctions of hempseed, are recommended.

If it arises from tumours of the neighbouring parts, or schirrosity of the liver, it is rarely cured: however, such things ought to be tried, as seem calculated to remove or palliate them; amongst which, perhaps, cicuta is the most eligible. *W.*

But

*But if, notwithſtanding the long** continuance of theſe medicines, the diſeaſe ſtill remains obſtinate, the patient ſhould go to ſome place where there is a chalybeate mineral ſpring, for inſtance, *Tunbridge*, and drink the water every morning at the well-head till he recovers.—And let this ſuffice for the diſeaſes of this conſtitution. Chap. 1. If it proves obſtinate, a courſe of mineral waters muſt be uſed.

SECTION V. CHAP. I.

Of the epidemic Conſtitution of part of the Years 1673, *and of the Years* 1674, 1675.

1. ABOUT the beginning of *July*, 1673, there aroſe another kind of fever, which did not prove very epidemic; becauſe the conſtitution was not yet ſo entirely diſpoſed to favour it, as wholly to exclude the diſeaſes of the preceding conſtitution. For that kind of ſmall pox which began in 1670 was not yet extinct, though it appeared leſs frequently, and the ſymptoms were milder; ſo that theſe two diſeaſes prevailed almoſt equally, but neither very ſeverely, the former conſtitution being not ſo totally gone off, as to leave none of the diſeaſes belonging thereto, (for the dyſentery continued to attack a few) and the then reigning conſtitution not being ſo The riſe of a new kind of fever.

* *But if, notwithſtanding the long continuance, &c.* Harrowgate and Bath waters are eſteemed by ſome almoſt ſpecific in theſe caſes. Theſe ſhould be drank in the beginning of ſummer, and in dry ſeaſons, and the particular circumſtances of the conſtitution conſidered, modes of living, &c. ſo that no general rules can be poſitively laid down for the patient's obſervance; only, that taken on the ſpot, they are much the moſt efficacious. *W.*

Sect. 5. perfectly eſtabliſhed, as to produce ſuch as might exterminate all other diſtempers.

2. The ſmall pox and this fever continued equally prevalent during this autumn and the following winter, but neither of them raged with great violence; and the dyſentery was in a manner extinct. But in *November* following, a ſharp froſt of ſome days being unexpectedly ſucceeded by warmer weather than I ever remember to have obſerved at this ſeaſon, ſome few perſons were ſeized with the dyſentery a little before and about *Chriſtmas*; but it ſeemed then to be going off, and in a ſhort time afterwards this kind of it at leaſt quite vaniſhed.

When the meaſles began in this conſtitution.

3. The next year the meaſles appeared very early, namely, in *January*, and proved as epidemic as that kind which began about the ſame time in 1670; for few families eſcaped it, and it attacked children eſpecially: but it was not ſo regular in its ſtages, as that which prevailed in the above-mentioned year. But I ſhall ſay more of the difference between them, when I come to treat of this kind more particularly. It increaſed every day more and more, till the *vernal* equinox, after which it abated as gradually, and at length went off ſoon after the *ſummer* ſolſtice.

4. As the epidemic meaſles of 1670 introduced the *black ſmall pox* above deſcribed, ſo the preſent kind, which appeared in the beginning of the current year 1673, being equally epidemic, was accompanied with a ſimilar kind of ſmall pox. For whereas the ſmall pox of the preceding conſtitution, as hath been already obſerved, after the firſt two years gradually abated of their blackneſs, and alſo increaſed proportionally in ſize, till towards the end of the year

1673,

1673, when, considering the kind, it was mild and favourable, it now returned with its former violence, and attended with very dangerous symptoms. This kind of small pox prevailed during the following autumn, and continued longer than usual in winter, which, on account of its uncommon warmth, favoured this disease; but when colder weather came in, it abated, and soon gave place to the present epidemic fever. Chap. 1. The small pox returns.

5. This fever, which had continued the whole year, made great devastation in the beginning of *July*, 1675, but at the approach of *autumn* it began to strike in upon the bowels, appearing sometimes with the symptoms of a dysentery, and at others with those of a diarrhœa; though sometimes it was free from both, and rather seized the head, and caused a kind of *stupor*. In the mean while the small pox, which attacked only a few subjects here and there, disappeared entirely towards the *autumnal* equinox: and now the fever, having overcome the other epidemics, became the capital disease of the year. It must however be observed, that as this fever was much disposed to throw off the morbific matter upon the bowels, which sometimes occasioned a dysentery, but more frequently a diarrhœa; so upon this account the gripes were generally supposed to have destroyed the numbers that died at this time, whereas in reality their death was rather to be ascribed to the fever, for such as attended the sick during this *autumn* knew how much the fever prevailed; so that both the dysentery and the diarrhœa ought rather to be accounted *symptoms*, than *essential* and *original* diseases. The fever assumes a different shape.

Sect. 5.

Undergoes another change.

6. This fever proceeded in this manner during the *autumn*, ſometimes ſeizing the head, at others the bowels, every where raging under the appearance of ſymptoms peculiar to thoſe parts, till the end of *October*; *when the weather, which till now had continued** in a manner as warm as ſummer, changed ſuddenly to cold and moiſt, whence catarrhs and coughs became more frequent than I remember to have known them in any other ſeaſon. But it is of moſt moment to obſerve, that the ſtationary fever of this conſtitution uſually ſucceeded theſe coughs, and hence became more epidemic, and likewiſe varied ſome of its ſymptoms. For whereas ſome little time before, as above mentioned, it attacked the head and bowels, now it chiefly ſeized the lungs and *pleura*, whence aroſe peripneumonic and pleuritic ſymptoms; though it was ſtill preciſely the ſame fever that began in

* *When the weather, which till now had continued, &c.* The reaſoning of Dr. SWAN on this paragraph is by no means concluſive, for though this ſtate of air may contribute to render the fluids acrimonious by obſtructing perſpiration, he proves not why it ſhould be a means of cauſing the fauces, throat, and lungs, to become ſubject to theſe affections, which produce ſwellings, coughs, quinſies, catarrhal fevers, &c. more than any other of the internal parts of the machine: for, from the ſources he ſpecifies, all the internal parts are alike liable to morbid affections. Some reaſon ought to have been advanced to ſhew why ſuch a determination of the fluids ſhould be to theſe parts ſo peculiarly directed. And here it ſeems very probable, that it is owing to the moiſture drawn in with the air upon the fauces, throat, and lungs, by which they are more immediately weakened and relaxed than the reſt: hence, a greater congeſtion of the humours there, and conſequently irritation, from perſpiration through the cuticular pores on the ſurface, being impeded by the attendant cold, producing together ſtrong re-action of the ſyſtem, and local debility. *W.*

July

July 1673, and continued without any alteration of its symptoms till the rise of these catarrhs. Chap. 2.

7. These catarrhs and coughs continued to the end of *November*, after which time they suddenly abated. But the fever still remained the same as it was before the catarrhs appeared; though it was neither quite so epidemic, nor accompanied with the same symptoms, both these depending accidentally upon the catarrhs. Moreover upon their going off, a small pox, manifestly of the same kind with that of the preceding year, began to attack a few persons here and there; but as they had now almost completed their second year, the symptoms were not so violent as in the beginning. Yet still remains essentially the same.

I cannot say how long this constitution will prevail, but this I certainly know, that it has hitherto been very *anomalous* and irregular, as have likewise all the diseases occasioned thereby. I proceed now to treat of the epidemics of this constitution, in the order wherein they succeeded each other.

CHAP. II.

Of the continued Fever of the Years 1673, 1674, 1675.

1. *THIS fever, like other epidemics,** was attended with such symptoms soon after its rise, This fever most inflammatory in the beginning.

* *This fever like other epidemics, &c.* This fever is considered by Dr. CULLEN as a variety of the *Synocha*, or inflammatory fever; and by SAUVAGES classed with those he terms *synochus*, and called *synochus rheumatizans*. *W.*

Sect. 5. rise, as clearly shewed that the inflammation *was then more violent* and spirituous, *than in its progress.** For the first year of its appearance, and the following spring, pleuritic symptoms succeeded upon the fever, and the blood that was taken away resembled that of pleuritics, at least for the first and second time, but in the course of the disease these signs of an extraordinary inflammation disappeared.

Its distinguishing symptoms.

2. Besides the usual symptoms of all fevers, this fever generally had the following: (1.) A violent pain in the head and back; (2.) a *stupor*, (3.) and tensive pain of the limbs, joints, and whole body, but somewhat milder than in a rheumatism; (4.) heat and cold succeeded alternately in the infancy of the disease, (5.) and sometimes also a great tendency to sweat accompanied it; (6.) when the fever was suffered to proceed according to its own nature, the tongue was not dry, and but little altered in its natural colour,

* *Was then more violent than in its progress, &c.* It is not at all improbable that the contents of the air, productive of an epidemic disease, are possessed of a much greater degree, both of virulence and activity, when they first begin to communicate their morbific impressions, than some time afterwards; and hence the disease occasioned thereby may be considerably more inflammatory and universal at the beginning, than in the progress and declension thereof.

But may not this circumstance more probably arise from the predisposition induced in the system by the constitution of the air, rendering it more susceptible of the impressions made by the morbid effluvia, and more strongly favouring the production of the severity of their effects, than to any increase of virulence and activity inherent in them? I should rather be of the latter opinion, as we constantly see such great variation with respect to the malignity or mildness of diseases reigning epidemically, produced on different constitutions; besides, the great numbers thus attacked in the beginning favours this idea. *W.*

only

only it was whiter; (7.) the thirſt was inconſiderable; (8.) but when the heat was increaſed beyond the degree common to this fever, the tongue appeared extremely dry, and of a deep yellow colour, the thirſt alſo was increaſed, and the urine became intenſely red, which otherwiſe uſed to retain almoſt its natural colour. When this fever was accompanied only with theſe ſymptoms, it went off on the fourteenth day, if ſkilfully treated; but when it proved very inveterate, it continued till the *one and twentieth* day. Chap. 2.

3. Amongſt the ſymptoms attending this fever, the principal one was a kind of *coma*, which rendered the patient ſtupid and delirious, ſo that he would doze ſometimes for ſeveral weeks, and could not be awakened without loud noiſes, and then he only opened his eyes, and directly after taking either a medicine, or a draught of ſome liquid he was uſed to, fell into a ſleep again, which ſometimes proved ſo very ſound as to end in an entire loſs of ſpeech. The principal one a kind of *coma*.

4. When this ſymptom vaniſhed, the patient grew better on the *twenty-eighth*, or the *thirtieth* day, the firſt ſign whereof was the deſiring or longing for ſome odd and uncommon kind of liquid or ſolid aliment. But the head continued weak for ſome days, and nodded ſometimes on this and ſometimes on that ſide; and there were other ſigns, which manifeſted it to have been greatly diſordered: but in the ſame degree that the ſtrength returned, this ſymptom went off. The firſt ſign of recovery.

5. Sometimes the patient did not ſleep, but was rather ſilently delirious, though at times he talked wildly, as if in a paſſion; but the fury never roſe to ſo great a height, as is common in a phrenzy in the ſmall pox and other fevers; Sometimes a ſilent *delirium* happened.

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Sect. 5. from which it alſo differed in this particular, that he ſlept confuſedly at intervals, and likewiſe ſnored more ſoundly. Neither was this ſymptom ſo acute as a phrenzy, but it continued longer, and chiefly affected children and youths, whereas that chiefly attacks grown perſons. But in both, if heating medicines were given, and ſweating promoted, the diſeaſe ſoon flew up to the head, and occaſioned this ſymptom.

6. But where this ſymptom neither came ſpontaneouſly, nor was forced by medicine, the diſeaſe generally terminated in *fourteen*, and ſometimes in *three* or *four* days, as I have occaſionally obſerved.

7. In *autumn*, 1675, as we intimated above, this fever endeavoured to go off by a dyſentery, and ſometimes by a looſeneſs; but the latter eſpecially happened very frequently, whilſt the *ſtupor* ſtill continued: however, as far as I could learn from diligent obſervation, both theſe were only ſymptoms of this fever.

This fever of a peculiar kind.

8. To proceed to the cure: when this fever aroſe, *viz.* in *July* 1673, I immediately perceived it was of quite another kind, both from the various ſigns wherein it differed from thoſe which accompanied the fevers of the preceding conſtitution, and from its not yielding to purging, by which I ſucceſsfully cured all thoſe fevers. Upon this account I employed more time than ordinary in ſearching into its ſpecies, and was *conſequently under much perplexity in what manner to proceed in the cure.** For when this fever firſt

* *Under much perplexity in what manner to proceed, &c.* Our author here ſhews great caution in avoiding error in his proceedings, which might be fatal; and for want of proper circum-

first appeared, it had no epidemic cotempo- Chap. 2.
rary therewith, whose genius being thoroughly known, might enable me to discover somewhat of the nature of this; for the small pox which accompanied it, as I have before said, seemed to be the remains of the black small pox of 1670, and was now become very mild, and nearly extinct. I had no other way left, therefore, but to inquire carefully into this disease as it stood alone, and to use my best endeavours to find out

circumspection much mischief is daily committed by the rashness of indiscreet practitioners: but in all these cases, where the precise nature of the complaint lies hid, there are certain modes to be pursued, especially in such as are acute, where, if great good cannot be done, all mischief may be avoided. SYDENHAM here evidently shews he was directed by his theory, for he considered a particular degree of commotion of the fluids necessary to promote concoction, which if disturbed or weakened by any means, nature was prohibited in her operation, and a cure prevented; without, therefore, he knew the precise nature of the offending cause, he was at a loss how to act; he endeavoured on that account to discover what things seemed to assist, or what appeared to retard her efforts, and applied such a method of cure as was consistent with the known actions of the former. But by adverting to the constitution, and the effects produced upon it, without paying any regard to the semina morbi, we may always be serviceable in these cases; and for this purpose we must endeavour to bring the constitution into a state, as near the standard of health as possible; which will be done by obviating the difficulties as they arise in this or that part of the system; hence, in all cases, we are to support insensible perspiration; clear the stomach and intestines, by gentle means, of any superabundant load with which they may be oppressed; regulate the different secretions and excretions, and prevent the violent re-action of the system, or quicken the action of the motory powers where too torpid; by which means the constitution will be put into a state, the least capable of feeling the violent impulses of the morbid miasmata, or offending cause, and nature be empowered to execute her own office in the subduction of disease, by being freed, at least, from every constitutional obstacle. *W.*

a suit-

Sect. 5. a ſuitable method of cure, by always attending diligently to the *juvanta et lædentia*, *i. e.* to what made the patient better or worſe.

Attended with great inflammation.

9. The violent pain in the head, and the tendency there was to a pain in the ſide, together with the reſemblance of the blood to that of pleuritics, ſoon ſhewed that this fever was accompanied with a conſiderable inflammation, notwithſtanding which it would not admit of ſuch large evacuations as are proper in a pleuriſy; for after the firſt and ſecond bleeding the blood intirely loſt its ſizy ſurface, and repeated bleeding did not at all relieve, unleſs, perhaps, the diſeaſe changed to a true pleuriſy, which ſometimes happened by uſing a hot regimen, eſpecially during the firſt ſpring wherein it attacked, namely, in 1664, at which time being promoted by the approach of the ſun, it ſeemed to tend to a kind of peripneumony, the diſeaſe being then in its infancy, and more ſpirituous than afterwards. Being deterred from repeated bleeding, by the ill ſucceſs which attended it in ſome inſtances, notwithſtanding this fever manifeſtly appeared to be of a very inflammatory nature, eſpecially at its firſt coming, I had no other means left to mitigate the heat thereof, except the frequent repetition of glyſters, *and the uſe of cooling medicines.** Beſides the ſymptoms that ſo apparently diſcovered an inflammation, the

Repeated bleeding bad.

Glyſters,

* *And the uſe of cooling medicines, &c.* SYDENHAM has not mentioned what theſe were. Dr. SWAN, therefore, ſupplies this defect, by mentioning, nitre, crude ſal ammoniac, Mindererus ſpirit, and diuretic ſalt; but gentle doſes of antimonials would anſwer the purpoſe better; or they might be given in conjunction with theſe, or the ſaline mixture. *W.*

ſtupor,

ſtupor, which happened oftener in this than in any other fever, indicated the frequent injection of glyſters, in order to make a revulſion of the febrile matter from the head, which it was very apt to attack in this diſtemper; and they were ſubſtituted inſtead of repeated bleeding, which agreed not well with the nature of it, and ſupplied the want thereof by gradually and gently cooling the blood, and expelling the morbific cauſe. Chap. 2.

10. Moreover I judged that *large bliſters applied between the ſhoulders** muſt needs do more ſervice in this than in other fevers, where the febrile matter does not equally affect the head; for by the violent heat and pain they uſually occaſion in the part whereon they are laid, the matter, which would otherwiſe fly up to the head, is derived thereto. By the uſe of theſe remedies, along with a cooling regimen, the diſeaſe at length yielded, as it were, naturally and ſpontaneouſly, how ſeverely ſoever it raged, when it was treated by a different method; as plainly appeared to me from numerous inſtances. And bliſtering ſerviceable.

11. I proceeded, therefore, in the following manner: I firſt took away ſuch a quantity of blood from the arm, as the ſtrength, age, and other circumſtances required, and then immediately applied a large bliſter between the ſhoulders. The next day I ordered a laxative The method of cure particulariſed.

* *Large bliſters applied between the ſhoulders, &c.* In order to relieve this ſymptom of ſtupor, which ariſes from affections of the head, bathing the feet in warm water, or fomenting the inner and lower parts of the thighs, applying bliſters there, and on the head itſelf, have been recommended as eminently ſerviceable, and proved from long continued experience. *W.*

glyſter

Sect. 5. glyſter to be given ſo early in the afternoon (*viz.* about two or three o'clock) that the diſturbance thereby occaſioned might be quieted before the evening, and it was repeated every day till the diſeaſe abated, when I judged that glyſters were to be omitted, and even ſooner, if the fever continued after the *fourteenth* day; having found that they availed not after this time, even though the fever had not been conquered by thoſe which had already been injected. For the violence of the diſeaſe, and the ſymptoms thereon depending, being now abated by the preceding ebullition, and the danger over, I judged it beſt to leave the diſeaſe to itſelf, to go off by degrees ſpontaneouſly. And this method always ſucceeded better with me, than the attempting ſome conſiderable evacuation at this time. In the mean while I forbad the uſe of fleſh, but allowed ſmall beer to be drank at pleaſure.

The patient ſhould riſe every day, and why.

12. In treating of the regimen of this diſtemper I muſt not omit to obſerve here, that the patient ſhould ſit up at leaſt ſome hours every day; much experience having ſhewn that this is of ſingular ſervice. But if it be contra-indicated by great weakneſs, the patient ſhould, however, put on his cloaths, and lie down on the bed with his head raiſed high. For having conſidered how violently the fever was carried up to the head, and alſo the inflammatory ſtate of the blood, I conceived he might find ſome relief by placing the body in ſuch a poſture, as might prevent all increaſe of heat from the bed cloaths (which cannot be avoided if he lies conſtantly in bed) and check the courſe of the blood to the head, which increaſes the heat of the brain, and conſequently heats and agitates the animal ſpirits, whence the heart beats quicker, and the fever riſes higher.

13. But

13. But how ſerviceable ſoever it be in all fevers, attended with great inflammation, not to confine the patient continually in bed; yet it muſt be obſerved, that the ſitting up too long at a time, particularly in the declenſion of the diſeaſe, diſpoſes to flying pains, that may end in a rheumatiſm; and ſometimes a jaundice is hereby occaſioned. In theſe caſes lying in bed is neceſſary, which opens the pores, ſo that the particles occaſioning either of theſe diſorders may be conveniently carried off thereby. But the patient is to be kept only a day or two in bed, without exciting ſweat. Theſe accidents, however, ſeldom happen, and never but in the decline of the fever; when, the diſeaſe being abated, it is much ſafer to let the patient lie conſtantly in bed, than in the beginning or height thereof; for at this time it forwards the digeſtion of the febrile matter, which is more exaſperated and inflamed by an earlier confinement in bed. Chap. 2. But not ſit up too long.

14. But if it ſhould be objected here, that this method, though it be proper enough to divert the courſe of the blood from the head, and cool the patient, is nevertheleſs improper, becauſe it checks the evacuation by ſweat, whereby the febrile matter, now concocted, ſhould be wholly expelled; I reply, that the objection is of no force, unleſs it be firſt proved that this kind of evacuation is neceſſary in every fever, which cannot eaſily be done. *For experience, not reaſon, points out* * which ſpecies of fevers is to be cured by The method of cure vindicated.

* *For experience, not reaſon, points out, &c.* SYDENHAM, by the word reaſon in this place, means reaſoning a priori; reaſoning founded on hypothetical data: for mere experience, unſupported by reaſon, is empiriciſm—practice

Sect. 5. by ſweat, and which by purging, *&c.* Moreover, it is not improbable that there are ſome kinds of fevers, which nature cures by a peculiar method of her own, without any viſible evacuation, *viz.* by moulding and aſſimilating the morbific matter in the blood, with which it did not well mix. And going upon this principle, I have often cured this and other ſorts of fevers (provided they were not intermittent) in the beginning, before the whole maſs of blood was vitiated, only by directing ſmall beer to be drank at pleaſure, forbidding broths, and every other kind of aliment, allowing the patient the uſe of his ordinary exerciſe, and the open air, and not ſo much as once uſing any evacuation.

is beſt founded on the coincidence of theſe two principles. In almoſt all fevers, where the morbid matter is ſuffered to fix in the habit, and produce its full effects, we find the miaſmata have ſome predilection in making its exit at a proper time, more for one part of the ſyſtem than the other: the ſmall pox and meaſles, and ſome other eruptive fevers, for the ſkin; the plague for the glands, particularly the inguinal and axillary; the dyſenteric fever for the inteſtines, &c. Of theſe facts we are certain: but how are we to diſcover, when patients are attacked with any of theſe fevers, that they will terminate in this or that way? By faithful hiſtories tranſmitted to us from the obſervation of others. Hence, if we find that ſimilar ſymptoms ariſe, under ſimilar circumſtances, we are to expect ſimilar concluſions; and reaſon directs us to avoid diſturbing nature in her common courſe, by attempting to direct her efforts to parts of the ſyſtem, inconſiſtent with the known election; and to exert our efforts to pave the way for the expulſion of the morbific matter by thoſe outlets of which ſhe always, in theſe particular caſes, makes uſe: at the ſame time obſerving, that the means employed ſhall be ſo conducted, that the critical diſcharges ſhall be promoted by the eaſieſt method poſſible, that the otherwiſe ſalutary effects may not be productive of miſchief, and become, inſtead of a cure of one, the cauſe of other diſeaſes. Reaſon thus acquired, is the beſt medical pilot, and ever muſt be held Experience's beſt aſſociate. *W.*

Thus

Thus I have cured my children and intimate friends, *by making them faſt ſtrictly for two or three days*;* but this method is only to be uſed in young perſons, and ſuch as are of a ſanguine conſtitution. Chap. 2.

* *By making them faſt ſtrictly two or three days, &c.* This requires not the pompous parade of great names to give it force, on the ſlighteſt reflection we muſt be convinced of its truth, if we conſider the ſtate of the conſtitution labouring under acute fevers; for we find the whole ſyſtem in ſuch a ſtate of diſturbance, that few of its functions are performed regularly and perfectly. All its efforts ſeem to be fully employed in conquering the powerful enemy; hence ſhould it be left at full liberty to accompliſh its purpoſes with eaſe and celerity; and what can contribute more to this than faſting? The ridiculous idea of patients wanting ſupport under thoſe circumſtances, and for that purpoſe pouring in loads of nutritious viands, can only live in the brain, and be the reſult of the moſt conſummate ignorance. For after eating we find febrile affections in a greater or leſs degree ſucceed; and more ſo in proportion as the digeſtive powers are in a weakened ſtate. Now the conſtitution being already oppreſſed by diſeaſe, and theſe powers debilitated, food adds conſiderably to the accumulation of miſchief by increaſing the ſtimulus in the habit, loading the ſtomach, filling the machine with crude humours, and laying an additional ſtreſs upon the motory powers, by which means re-action in the habit is increaſed, and all the febrile ſymptoms aggravated; which we conſtantly ſee happen in hectic patients, particularly if food is taken a little time before the uſual exacerbations: here, then, the conſtitution has to militate againſt two evils; and if the practice is continued, increaſes and prolongs the diſeaſe; ſo happens it in all acute fevers; on the contrary, faſting entirely prevents the one, and from leaving the conſtitution at liberty to exert its full power, ſupplies it with the beſt opportunity of ſubduing the malady. HIPPOCRATES, as quoted by Dr. Swan, was ſo ſenſible of the great utility of temperance, that he ſays, "Abſtemiouſneſs in eating and drinking is a preſervative from all diſeaſes;" and in another place, "that nothing is more conducive to health than to "eat ſparingly, and uſe exerciſe."—*W.*

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What kind of ſweat is to be promoted in fevers.

15. But if it be granted, that nature can conquer the diſeaſe no otherwiſe than by ſweat, ought it not to be underſtood of the ſweat that appears in the decline of the diſeaſe, in conſequence of the previous digeſtion of the peccant matter, and not of that which is forced in the beginning, and proceeds from diſturbing the procedure of raging nature? I conceive that ſuch a ſweat is not to be promoted, but contrariwiſe, that the diſturbance whence it proceeds, is rather to be quieted: this kind of ſweat uſually accompanies many, though not all ſorts of fevers. But I am well aware, that ſome kinds of fevers naturally require this ſort of critical ſweat at their declenſion; ſuch are the particular fits of intermittents, and likewiſe the great and moſt frequent fever of nature, ariſing from that conſtitution which only tends to produce intermittents epidemically. For if any method be followed, which does not tend, (1.) to digeſt the morbific matter, and (2.) to expel it by ſweat, the diſeaſe will be increaſed thereby; ſo that no evacuations muſt be uſed here, unleſs inaſmuch as they moderate the violence of the diſeaſe in the beginning, for fear of occaſioning the death of the patient during the courſe of the cure. Moreover, the cauſe of a peſtilential fever, as it is of an exceeding ſubtile nature, may be carried off by ſweat on the firſt days of the illneſs, as experience univerſally ſhews.

In what fevers ſweating is prejudicial.

16. But in thoſe fevers, wherein we never find, by the common courſe of the ſymptoms, and when they are ſuffered to proceed according to their own genius, that nature is uſed to diſcharge the morbific matter, now prepared, in a limi-

a limited time, it would be very imprudent to attack the diſeaſe, and endeavour to cure it only by promoting ſweat, ſince, as *Hippocrates* obſerves, *it is in vain to oppoſe the motions or tendency of nature.** And I conceive this ought to take place in the fever under conſideration, which I know by much experience may be cured without ſweat, and likewiſe that, whilſt we endeavour to force it unſeaſonably, the life of the patient is unneceſſarily endangered, by the morbific matter being tranſlated to the head. But, however, no prudent phyſician will reckon it a trifling advantage, either in this or any other fever, not excepting ſuch as are not uſually terminated by a *critical* ſweat, if ſuch a kind of ſweat ſhould by accident ſucceed ſpontaneouſly upon the abatement of the diſeaſe, ſince by the remiſſion of all the ſymptoms this ſweat may be eſteemed to proceed from a due concoction of the febrile matter. But when it does not appear ſpontaneouſly, what aſſurance have we, that the patient will not be deſtroyed, whilſt we endeavour by a hot regimen and car- Chap. 2.

* *It is in vain to oppoſe the motions and tendency of nature, &c.* It is ſomething more than vain, it is always dangerous, and very often fatal, to make the attempt. In the confluent ſmall pox, what can compenſate for ſtopping the ptyaliſm? What the tendency to cuticular eruptions in the diſtinct? In the plague, how can the injury be repaired, ſhould we endeavour to prevent the formation of buboes, carbuncles, anthraces, &c.? In the dyſentery, how are the ſucceeding miſchiefs to be avoided on prematurely putting a period to the inteſtinal flux? This is an obſervation ever cloſely to be attended to.—*See the latter part of our note*, pag. 305.—Notwithſtanding which, in *many fevers* the natural progreſs may be with ſafety prevented; the duration greatly ſhortened, and the dangerous tendency altogether avoided, by the means ſpecified *note* *, pag. 44. *W.*

Sect. 5. diacs to dispose the humours to sweat? Should a person by chance find something of value in his way, he would doubtless stoop to take it up, unless he were a fool; but he must needs deserve that character, who, having had this good fortune, should use his utmost endeavours to obtain such another prize with the hazard of his life. Be this as it will, it is apparent to me, that the fever alone is attended with a sufficient degree of heat to prepare the febrile matter for concoction, and needs no additional heat from without, by means of a hot regimen in order thereto.

Bleeding and glysters successful, but diaphoretics bad, in this fever.

17. I have found the above-mentioned method of bleeding and injecting glysters very successful in the cure of this fever; whereas contrariwise sudorifics not only occasioned anomalous symptoms of a bad kind, but likewise rendered the cure uncertain. The capital symptom in this fever was the silent *delirium*, which did not manifest itself so much by talking wildly, as by a *stupor* resembling a *coma*, which, as we said above, often happened in this fever. I have sometimes known it come spontaneously, but it is generally occasioned by the ill-timed over-officiousness of nurses in raising sweat, whereby the morbific matter (which in this kind of fever does not admit of expulsion of sweat) is put into a violent motion, and at length flies up to the head, to the endangering the life of the patient.

18. I have already remarked, in treating of the cure of the fever of another constitution, that in the latter years of its prevalence a *stupor* of this nature chiefly affected children and such as were under fourteen years of age; but that was

was neither so considerable, nor so epidemic, as the *stupor* which accompanied the present fever. Yet I could not conquer the first, and much less the last, in the beginning of the fever, though I used all possible endeavours, by repeated bleeding both in the arms, neck, and feet, blistering, cupping, giving glysters and sudorifics of all kinds, and the like; so that at length I determined, after bleeding in the arm, to apply a blister to the neck, and throw up two or three glysters of milk and sugar in the beginning of the illness, without doing any thing more than forbidding the use of flesh and all kinds of spirituous liquors: in the mean time I attended the procedure of nature, and by following her steps learnt at length how to conquer this symptom; for the disease went off safely, though slowly. Upon this account I judged it necessary to pursue this method in all the fevers I have since treated, and look upon it as a thing of great importance, if the greatness of the symptom, and the constant success attending it be considered.

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The *stupor* yielded to nothing in the beginning.

19. And in reality I have sometimes thought, that we do not proceed slowly enough, and ought to use less expedition in removing distempers, and *that more is frequently to be left to nature,* than* is usual in the present practice. For

Haste in curing diseases sometimes pernicious.

* *And that more is to be left to nature, than is usual in the present practice, &c.* Whatever reason our author might have for this accusation in his time, at present there is no foundation upon which such a charge can be supported; for no man, as far as I know, who merits the name of a physician, ever attempts, when *a fever is perfectly formed*, to prevent nature from exercising her own powers. I believe it is the uniform practice to obviate only the difficulties

Sect. 5. For it is a grand miſtake to conclude that nature always wants the aſſiſtance of art; for if that were the caſe, ſhe would have made leſs proviſion for the ſafety of mankind than the preſervation of the ſpecies demands; there being not the leaſt proportion between the multitude of diſeaſes and the knowledge men were endowed with to remove them, even in thoſe ages wherein the healing art was at the higheſt pitch and moſt cultivated: what it may do in other diſeaſes, I cannot ſay; but I am convinced from diligent obſervation, that in the fever under conſideration this ſymptom, after uſing the general evacuations, *viz.* bleeding and glyſters, was ſucceſsfully conquered by time alone.

Improper diet, when to be indulged.

20. It has been already obſerved that the ſign of recovery did not uſually appear till the *thirteenth* day, when the *ſtupor* was conſiderable, and attended with a loſs of ſpeech; and then the patient earneſtly longed for ſome odd kind of liquor or ſolid aliment, the ferment of the ſtomach being greatly vitiated by the long continuance of the fever. Now in this caſe, though the patient was ſo weak as to need a reſtorative diet, yet I willingly allow ſuch things as were leſs proper, provided they were more grateful to to the palate.

ties as they ariſe, in order that nature may purſue her own ſteps with the utmoſt regularity and certainty. To endeavour to correct the errors of unſkilful practitioners, to whom Dr. Swan alludes, who ſteer without rudder or compaſs, would be a work more ſevere than the labour of Hercules in clearing the Augean ſtable, vanity and ſelf-conſequence, thoſe conſtant aſſociates of the ignorant, are perpetual bars to conviction and reformation. With regard to the folly and impatience of mankind, of which the Doctor alſo complains, *ſee our note* *, pag. 49.—*W.*

21. In

21. In *September*, 1674, I attended the ſon of Mr. *Not*, bookſeller, a youth of nine years of age, who was afflicted with this fever, accompanied with the above-mentioned ſymptoms. After bleeding in the arm, and injecting glyſters every day in the beginning of the illneſs, the mother earneſtly importuned me to haſten the cure more than I judged conſiſtent with the ſafety of her child, and therefore I refuſed to comply with her requeſt. Having accordingly gained time, I directed only a common julap; which I did rather to pleaſe the mother, than to relieve the ſon. On the *thirtieth* day he began to mend, and earneſtly deſired ſeveral odd kinds of eatables, ſome of which were indulged him upon this account, *though they ought not otherwiſe to have been allowed*; * and by this means he at length recovered.

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22. But

* *Though they ought not otherwiſe to be allowed, &c.* Under theſe circumſtances a phyſician, even of the firſt eminence, ſtands very often in an aukward predicament; he knows, that frequently gratification in things apparently improper, according to medical reaſoning, have been ſerviceable, which perhaps is owing to a quietude of mind reſulting from ſuch gratification, and therefore will not refuſe his conſent, if certain the deſire predominant in his patient is real, not the effect of whimſicality: but it is often more the reſult of the latter than the former; ſhould he therefore accede to the ſolicitation of the indiſpoſed, often warmly ſupported by friends, and any diſagreeable conſequences ariſe, he becomes culpable in their eyes, and his judgement called in queſtion; nay, even their opinion is ratified by ſome of the faculty, who have the tale delivered to them in a mutilated form. In this ſituation much caution is neceſſary. If I ever conſent to ſuch requeſts, I order, whatever it is they have deſired, at firſt to be tried with a ſparing hand, and proceed accordingly; at the ſame time aſſuring the patient, my leave is obtained more in conformity

to

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Sometimes a *delirium* with a watchfulness, &c. happened in this fever.

22. But though this comatous kind of *stupor* oftener accompanied this fever than the other symptoms, yet sometimes, though rarely, a *delirium* happened without a *stupor*, in which the patient slept neither night or day, and was ungovernable, and was seized with other symptoms, resembling those which affect delirious persons either in the small pox or in other fevers. This symptom would not admit of palliation, like the comatous disorder just mentioned, till concoction could be performed, but proved fatal in a short time, unless the inflammation was abated. In this case, *spirit of vitirol* did more good than any thing else, so that, after bleeding, and injecting a glyster or two, I allowed it to be dropt into small beer for common drink: and in a few days it disposed the patient to sleep, and having removed the symptoms, restored him to health, which indeed I was not able to effect by any other method. And this was manifest to me by much experience.

Spirit of vitriol most effectual in removing these symptoms.

23. In *Autumn*, 1675, dysenteric stools, and sometimes a looseness succeeded this fever, which I presently perceived were *symptomatic*, and not *original* disorders, as in the preceding constitution. But notwithstanding, as the cause of the disease was contained in the mass of blood,

to his solicitude, than from any opinion I have of the propriety of the indulgence: thus have I sometimes escaped the censure of fools and the malevolence of the illiberal. —For notwithstanding the great difficulty, the laborious study, the constant attention, the accurate observation, and uncommon sagacity necessary for acquiring a competent knowledge of, and practising with tolerable success, the medic art, there is no character which experiences more abundantly the abuse of presuming ignorance than the physician. *W.*

bleeding

bleeding was indicated, which, with the assistance of two doses of an opiate afterwards, proved sufficient to overcome this symptom. Chap. 2.

24. In *September*, 1675, I was called to Mrs. *Conisby*, who was seized with this fever, which was suddenly followed with gripings, and these by bloody and mucous ejections. Though her strength was much exhausted by the long continuance of the disease, and especially by the frequent stools which had greatly fatigued her the preceding night, I directed bleeding in the arm immediately, and soon after gave an opiate, after which there appeared natural stools the same evening. I repeated the opiate the following morning and evening, and ordered a gentle cardiac to raise the spirits; and by this treatment she soon recovered. The dysentery succeeding this fever, how conquered.

25. As to the *diarrhœa*, which frequently happened in this fever, about this time of the year, it occasioned little inconvenience; and as it neither proved serviceable, nor prejudicial, as far as I could perceive, whether there was a *stupor* or not, so it furnished me with no indication, provided it was not so violent as to endanger the life of the patient, in which case an opiate was clearly indicated; and in this symptom only is the use of anodynes to be approved throughout the course of this disease; for the extraordinary tendency to a *stupor* in this fever was increased by medicines of this kind, consequently they were not to be given without an absolute necessity. The looseness succeeding it, how cured.

26. It must be observed, that it often happens that those persons who recover after this and other fevers, especially such as have been much exhausted by its long continuance, and have required Night sweats whence, and how cured.

Sect. 5. quired large and tedious evacuations to complete their cure (particularly if they were alſo of a weak conſtitution) do, as they lie in bed at night firſt grow hot, and then fall into a profuſe ſweat, whereby they are greatly debilitated, and recover ſtrength ſlowly; and ſome likewiſe fall into a conſumption. As I conceived that this ſymptom proceeded only from the blood's being ſo impoveriſhed and weakened by the continuance of the preceding illneſs, that it could not aſſimilate the juices lately taken in, but endeavoured to expel them by ſweat; *I ordered that the patient ſhould take five* or ſix ſpoonfuls of old *Malaga* ſack, morning and evening, whereby the ſtrength increaſed daily, and the ſweat vaniſhed. And thus we have finiſhed our diſcourſe of the continued fever of this conſtitution, which we chuſe to call the *comatous fever*, on account of the great *ſtupor* which generally accompanied it.

CHAP. III.

Of the Meaſles of 1674.

The riſe of a new ſpecies of the *meaſles.*

1. IN *January*, 1674, *there aroſe a different kind of the meaſles*† from that which began in the ſame month, in 1670, and yet it proved as epidemic,

* *I ordered that the patient ſhould take, &c.* A reſtorative diet, proper exerciſe, and the uſe of a *light infuſion of the bark in red wine*, will ſeldom fail of producing the deſired effect in this caſe. *Elixir of vitriol* is alſo eſteemed an excellent medicine for the ſame purpoſe.

† *There aroſe a different kind of meaſles, &c.* This is the *rubeola anomala* of SAUVAGES, and the firſt variety of the *rubeola*

demic, but was not equally regular, nor ſo conſtantly kept its ſeveral ſtages; for ſometimes the eruptions came out earlier, and ſometimes later; whereas in the other kind they always appeared on the *fourth* day incluſive from the beginning of the illneſs. Again, the eruptions here appeared firſt on the ſhoulders, and other parts of the trunk; but in the other ſpecies they firſt ſhewed themſelves in the face, and by degrees ſpread over the reſt of the body. In this ſpecies likewiſe I ſeldom found that the ſkin peeled off like branny ſcales upon the diſappearance of the eruptions, which happened as certainly in the other kind, as after a ſcarlet fever. Moreover, this ſort proved more deſtructive, when unſkilfully treated, than the former; for the *fever* and *difficulty of breathing*, which uſed to ſucceed at the cloſe of the diſtemper, were more violent here, and reſembled a *peripneumony* more. But though this ſpecies of the meaſles was anomalous and irregular, with reſpect to the ſymptoms juſt mentioned, yet in general the deſcription of that of 1670 agreed pretty well therewith; which need not therefore be repeated here. This kind alſo, like the former, increaſed till the *vernal* equinox, from which time it abated, and at length vaniſhed, at the approach of, or ſoon after, the *ſummer* ſolſtice. Chap. 3.

rubeola vulgaris of Dr. CULLEN; *ſee note*, pag. 255; on which there will require no animadverſion, as this ſpecies differs only from that treated of before, in the ſymptoms being more ſevere, and its progreſs not ſo regular. What has been offered on that ſubject, aſks in this place for no variation; *hence our reader is referred back to* pag. 255. *W.*

2. As

Sect. 5.

The method of cure, whence to be taken.

2. As the method of cure differs little from that which is amply delivered above in the history of the measles, it is to be sought for there; and I will only give a single instance hereof in this place, according to my custom.

Exemplified in some children.

3. In *February*, 1674, the Countess of *Salisbury* sent for me to one of her children in the measles, which the rest, to the number of five or six, soon afterwards catched, and I treated them all in the same manner. I ordered they should lie in bed for two or three days before the eruption, that the blood might breathe out through the pores the particles occasioning the distemper, which were easily separable from it. But I allow them no more cloaths, nor a larger fire, than they were accustomed to when in health. I forbad the use of flesh, and permitted them to sup water gruel, and barley broth, and between whiles to eat a roasted apple, and I gave them small beer, or milk boiled with thrice its quantity of water for drink. I also prescribed a pectoral ptisan, as usual, to be drank occasionally, as the cough proved troublesome. By this means they recovered in the short time wherein this disease ordinarily terminates, and were not seized with any symptom which is not common in the measles, throughout the course, or after the departure thereof.

The origin of a *morbillous fever*.

4. During the first two months in which this kind of measles prevailed, a kind of *morbillous fever* intervened in a few subjects, attended with some eruptions in the body, but especially in the neck and shoulders, resembling the measles, from which however they differed in being confined to the parts above mentioned, and not seizing the whole body. The fever also, though

mani-

manifestly of the same kind, was more violent, and lasted *fourteen* days, and sometimes longer. It admitted neither bleeding nor glysters, being exasperated by both, but readily yielded to the method adapted above to the measles.—And let this suffice for the measles. Chap. 3. Bleeding and glysters bad therein.

CHAP. IV.

Of the anomalous Small Pox of 1674, 1675.

1. AS the *epidemic measles*, which appeared in the beginning of the year 1670, introduced the *black small pox* there described; so that kind which arose in the beginning of 1674, and proved equally epidemic, introduced a sort of small pox, so extremely like the former, that it seemed to be the same revived, and not a new kind. For as we have before observed of that sort of small pox, that after the first two years of its prevalency the pustules became daily less black, and grew larger by degrees, till the end of the year 1673, when the disease was mild and gentle, considering the kind, it now returned again with its former violence, and attended with a train of destructive symptoms. For in the *flux kind* the pustules appeared of a sooty blackness, unless the disease proved fatal before they came to suppuration; for whilst they ripened they were only of a brown colour. Moreover when the pustules were numerous, they were very small (for where very few appeared, they were of the same size as in other kinds of the small pox, and were rarely black) and nearly resembled that kind above described which prevailed The return of the *black small pox*.

Sect. 5. vailed in 1670, differing only in a few particulars, which ſhewed that this ſort was attended with a greater degree of putrefaction, and of a groſſer and more indigeſtible nature: for when the eruptions came to maturity, they were much more fetid than in the other kind, inſomuch that I could ſcarce bear to approach ſuch as were very full, the ſtench was ſo offenſive. They alſo run through their ſtages ſlower than any other ſpecies I had hitherto ſeen.

The milder the kind the ſooner the puſtules ſuppurate.

(2.) It is worth obſerving, that the milder the kind is, the ſooner the eruptions come to ſuppuration, and the diſeaſe is terminated. Thus in the regular ſpecies of the *confluent ſmall pox*, that began in 1667, the *eleventh* day was attended with moſt danger, after which the danger was generally over. In the next ſucceeding irregular ſpecies of the confluent ſmall pox, which aroſe in the beginning of 1670, the *fourteenth*, or at fartheſt the *ſeventeenth* day, proved moſt fatal, which if the patient ſurvived, he was in no further danger; for I never knew a perſon deſtroyed by this diſeaſe after the *ſeventeenth* day. But in this ſort of the confluent ſmall pox, there was danger after the *twentieth* day; and ſometimes if the patient recovered, which happened to few, the ankles not only ſwelled, which is common in every ſpecies of the confluent ſmall pox, but the ſhoulders, legs, and other parts; and theſe ſwellings begun with intolerable pain, like a rheumatiſm, and frequently came to ſuppuration, and terminated in very large ſinus's and impoſthumes in the muſcular parts; ſo that the patient's life was greatly endangered for ſeveral days after the ſmall pox was gone off. Hence I clearly perceived by what

what degrees this epidemic diſtemper advanced through theſe conſtitutions, the latter whereof always exceeded the former, both in the degree of putrefaction, and the indigeſtible ſtate of the morbific matter. Chap. 4.

3. *But the ſmall pox whereof I now treat*,* ſeems to me to be a new ſort ariſing from the former, now in the decline. For though, according to the tendency of the air productive of this epidemic, the *black* ſmall pox, which firſt appeared in 1670, had arrived at its declenſion, yet, like a relapſe of ſome diſeaſe cauſed by the freſh fermenting of the former matter, the air being again diſpoſed to produce the *ſmall pox*, brought it back; and the diſeaſe being renewed, and ha- This ſmall pox ſeems to be a new kind.

* *But the ſmall pox whereof I now treat, &c.* This ſpecies is arranged by Sauvages under thoſe of the confluent ſort, ſtiled *variolæ confluentes malignæ*, itſelf named *variola confluens nigra*, which term is retained by Dr. CULLEN, and placed under *variola confluens*, which he briefly and generally defines,

"The ſmall pox with puſtules numerous, confluent, irregular in their circumference, flaccid, and ſlightly elevated; the fever continuing after the eruption."—*Synopſis Noſologiæ Methodicæ*, pag. 132, 134.

SAUVAGES ſays, the character of the *variola confluens nigra* ariſes from the puſtules being black, pouring out black blood, the bottom gangrenous, the urine bloody; attended alſo with various hæmorrhages, the ſpaces between the puſtules being alſo black. The prelude is ſimilar to that of other malignant fevers, the eruption beginning on the ſecond day, the puſtules ſlightly elevated, and of a blackiſh colour; if perforated, there is an effuſion of black, livid cruor; the urine is for the moſt part bloody; the inteſtinal evacuations, urine, ſpitting, vomitings, and tears alſo, in ſome are ſanguineous; the interſtices between the puſtules are black; the fever and paroxyſms violent: this ſpecies is fatal commonly on the ſecond or third day.—*Noſologia Methodica*, vol. ii. p. 428. *W.*

Sect. 5. ving obtained fresh force, seemed clearly to revive, and in a manner to grow young again. And this kind proved so much more irregular, and was accompanied with greater putrefaction, in proportion as the matter occasioning it was grosser and fouler than that which produced the preceding kind. Now, to render this still more manifest, we must not imagine there is the least necessity of such a disposition in the air, as may propagate a particular epidemic in one place, and a very different one in another not far distant from it; but if this were the case, as it sometimes is, every motion of the winds would have a power of spreading a constitution. But I conceive it more probable, that a certain particular tract of air becomes replete with *effluvia* from some mineral fermentation, which infecting the air through which they pass, with such particles as prove destructive sometimes to one kind of animals, and sometimes to another, continue to propagate the diseases peculiar to the various disposition of the earth, till the subterraneous supplies of those *effluvia* fail; which may likewise undergo a new fermentation from the remains of the old matter, as in the case just mentioned.

Was of a grosser, and more putrefactive nature.

4. But whether this or any other hypothesis may better serve to solve the phenomena, is equal to me, who pretend to know nothing more than is clear from the fact itself. Of this however I am certain, that the present small pox exactly resembled that of the preceding constitution; only it seemed to be of a grosser nature, and attended with a much greater degree of putrefaction. And from these two causes it followed, that when the eruptions were very confluent, it destroyed abundance more than any other

other ſort I had hitherto ſeen; and in my opi- Chap. 4.
nion, was as fatal as the plague itſelf, with re-
ſpect to the numbers it affected: though, when it proved the diſtinct kind, it was not more dangerous than any other ſort, and by the ſize and colour of the puſtules, and other particulars, appeared to be a good ſort.

5. With reſpect to the cure, I have long wondered to find ſuch manifeſtly contrary indications, as this diſeaſe ſeemed to exhibit. For it was very evident that a hot regimen immediately cauſed ſuch ſymptoms as proceed from a too violent inflammation, *viz.* a *delirium*, purple ſpots, and the like, whereto this diſeaſe is chiefly ſubject; and contrariwiſe, too cool a regimen prevented the ſwelling of the face and hands, which is highly neceſſary here, and ſunk the eruptions. But after a long and thorough conſideration of theſe matters, I at length found that I could remedy both theſe inconveniencies at the ſame time. For by allowing the free uſe of milk boiled with three parts of water, ſmall beer, or ſome ſimilar liquor, I was enabled to check the commotion of the blood; and, on the other hand, by keeping the patient conſtantly in bed with his arms covered, the filling of the puſtules and the ſwelling of the hands and face were promoted by the moderate warmth thereof. Nor does this method contradict itſelf; for after the eruption is over, it is to be ſuppoſed that the blood hath thrown out the inflamed particles upon the habit, and therefore needs no *ſtimulus* in order to a further ſecretion of the matter; ſo that, as the principal affair lies now in the habit of the body, and promoting the ſuppuration of the puſtules, all that is to be done, with

Intimated contrary curative indications.

The method of cure ſpecified.

Sect. 5. reſpect to the blood, is, to prevent its being injured by the hot vapours that may ſtrike in from the ſkin covered therewith; and with reſpect to *puſtules*, they are to be brought to ſuppuration by the gentle heat of the external parts.

It failed in this ſpecies of *ſmall pox*.

6. But though this method ſucceeded well in the other kinds of the confluent ſmall pox, it nevertheleſs failed in that of this conſtitution; for moſt of thoſe died who had it in a violent degree, whether they were treated by my method, or by the hot regimen and cardiacs. I was very ſenſible therefore that, beſides the medicines which ſerved to check the ebullition of the blood, or promote the elevation of the puſtules, and the ſwelling of the face and hands, there was further required a medicine of ſufficient force to overcome the putrefaction, which appeared to be much greater in this ſort than any other I had obſerved. *At length I thought of ſpirits of vitriol,** which I conceived might anſwer both intentions, *viz.* (1.) check the progreſs of the putrefaction, and (2.) mitigate the vehement heat. Whereupon, leaving the patient to himſelf without doing any thing till the pain and vomiting pre-

A different one ſet down, which ſucceeded.

* *I thought of ſpirit of vitriol, &c.* It is beyond any doubt that this diſeaſe is of the highly putrefactive kind, and requires the liberal uſe of tonics and antiſeptics, on which alone we can build any the leaſt flattering hopes of ſucceſs: bark added to the ſpirit of vitriol renders it more powerful; and in caſes of idioſyncraſy, alum, ſaccharum ſaturni, myrrh, camomile, &c. may ſupply the place; and ſuch other methods ought to be purſued, as in caſes of putrid fevers, adapting the remedies to the violence and urgency of the ſymptoms.

The ſpiritus vitrioli dulcis in theſe caſes is likely to prove a very valuable medicine, as given by Dr. Carmichael Smith, —ſee his account in the *Medical Communications, London*, vol. i.—*W.*

ceding

ceding the eruptions were gone off, and all the pustules came out, at length on the *fifth* or *sixth* day I allowed small beer, gently acidulated with *spirits of vitirol*, to be taken at pleasure for common drink, recommending it to be drank more plentifully upon the approach of the suppuratory fever, and the use of it to be continued daily till the patient recovered. Chap. 4.

7. This spirit, as if it were truly a specific in this disease, surprisingly abated all the symptoms; the face swelled earlier, and in a greater degree, the spaces between the eruptions inclined more to a bright red colour, like that of a damask rose; the smallest pustules also became as large as this kind would allow; and those, which had otherwise been black, discharged a yellow matter, resembling a honey comb; the face, instead of being black, appeared every where of a deep yellow; lastly, the eruptions came sooner to suppuration and ran through all their stages a day or two sooner than usual. In this manner did the disease proceed, provided the patient drank freely of the liquor above commended; so that when I found there was not enough of it drank to take off the symptoms, I exhibited some drops of the *spirits of vitriol* between whiles, in a spoonful of some syrup, or a mixture of some distilled water and syrup, in order to make amends for the sparing use of the above-mentioned liquor. *Spirit of vitriol* commended.

8. I have now enumerated the many advantages of this medicine, and indeed I have not hitherto found the least inconvenience from the use thereof; for though it mostly stopt the salivation on the *tenth* or *eleventh* day, yet some stools usually succeeded at this time instead of No inconvenience attending the use thereof.

Sect. 5. it, which were leſs dangerous than that ſtoppage; for as we have often mentioned, ſuch as have the confluent ſmall pox are principally endangered on theſe days, becauſe the *ſaliva*, being rendered more viſcid, does then threaten ſuffocation. But in the preſent caſe, this ſymptom is relieved by the looſeneſs, and either goes off ſpontaneouſly, or is eaſily cured by the milk and water, and an opiate, when the danger from the ſmall pox is quite over.

The patient not to lie always in the ſame place in bed.

9. Though the patient by my order kept his bed during this time, and his arms in bed, I ſuffered no more cloaths to be laid upon him than he was accuſtomed to when in health; and permitted him to change place as often as he pleaſed, to prevent his ſweating, to which he was extremely ſubject, notwithſtanding this remedy.

The regimen.

In the mean time he ſupped water gruel and barley broth, and ſometimes eat a roaſted apple. Towards the decline of the diſeaſe, in caſe of faintneſs, or ſickneſs at ſtomach, I allowed three or four ſpoonfuls of canary; but after the *fifth* or *ſixth* day I ordered a compoſing draught (earlier than uſual) every evening for grown perſons, for children had no occaſion for it: the draught was *fourteen drops of liquid laudanum* in a little cowſlip water.

Bleeding and purging, when to be uſed after the ſmall pox is gone off.

10. On the *fourteenth* day I allowed the patient to riſe, on the *twenty-firſt directed bleeding in the arm*,* and then purged him twice or thrice, after

* *Bleeding in the arm, &c.* Though purging in this ſpecies, as well as all others of the ſmall pox, is abſolutely neceſſary at this period, yet bleeding in general cannot be proper, indeed in moſt caſes it will prove prejudicial, for the ſyſtem being already too much debilitated by the nature and violence of the preceding diſeaſe, cannot require any

after which he had a better colour, and looked brisker than those usually do whom this disease has so severely treated. Besides, this method generally preserved the face from those unseemly scars, which are occasioned by the corrosion of the skin from hot humours. Chap. 4.

11. On the twenty-sixth of *July*, 1675, Mr. *Elliott*, one of the grooms of the bed-chamber to the king, committed one of his servants to my care, who had this ill-conditioned sort of black small pox coming out. He was about eighteen years of age, of a very sanguine constitution, and was attacked with this distemper soon after hard drinking. The pustules were of the confluent kind, and ran together more than any I had hitherto seen, so that scarce any intermediate space was left between them. Relying upon the virtue of this efficacious medicine, I omitted bleeding, though I was called in soon enough to have done it, and ought indeed to have ordered it, as the disease was occasioned by drinking too much wine. When the eruption was over, *viz.* on the *fifth* or *sixth* day, I ordered *spirit of vitriol* to be dropped into some The method exemplified in a grown person.

any mode which would contribute so much to increase that debility. I scarce can conceive that any case can arise where this operation is requisite, a bland restorative diet, air, and exercise, seem the best things calculated to subdue the acrimonious state of humours, give fresh vigour to, and renew the tone of the system: but should such cases ever occur which may call for the use of the lancet, it would be right to give particular descriptions of them, and advance substantial reasons to authorise the deviation from the common rules which influence our conduct, supported at present by the consent of general practice, and established apparently on the most rational principles. *W.*

Sect. 5. bottles that were filled with ſmall beer, and allowed this liquor to be drank at pleaſure for common drink. On the *eighth* day he bled ſo much at the noſe, that the nurſe, terrified by this ſymptom, ſent in great haſte for me. And as ſoon as I came, perceiving that this hæmorrhage aroſe from the immoderate heat, and unuſual commotion of the blood, I ordered him to drink ſtill more freely of the acidulated ſmall beer, whereby the flux of blood was ſoon ſtopt. The ſalivation being plentiful enough, and the ſwelling of the face and hands, and the filling of the puſtules proceeding in a proper manner, the diſeaſe went on very well, except that in the decline thereof ſome bloody and mucous ſtools ſucceeded, which might have been prevented perhaps by bleeding in the beginning, for the reaſon above mentioned. Nevertheleſs I uſed no other medicine in the *dyſentery*, but the compoſing draught, which I ſhould have ordered to be taken every evening, if this ſymptom had not happened; and by this means it was checked, till the eruptions went off; and afterwards, upon taking away a ſufficient quantity of blood from the arm, and drinking plentifully of milk and water, the patient ſoon recovered.

In two children. 12. About the ſame time, Mr. *Clinch*, a neighbouring gentleman, committed two of his children to my care; one was four years of age, the other ſucked, and was not ſix months old; the eruptions were very ſmall and confluent in both and of the black kind, and came out like an *eryſipelas*. I directed *ſpirit of vitriol* to be dropt into all their drink, which, notwithſtanding their tender age, they drank without any averſion;

averſion; and not being ſeized with any worſe ſymptom, they ſoon recovered. My intimate friend, Dr. *Mapletoft*, accompanying me to viſit them, found the eldeſt recovering, and the youngeſt then lying ill in the cradle. Chap. 4.

13. But it muſt be noted, that as the diſtinct ſort of the *ſmall pox* of this conſtitution was very mild, it needed not this remedy; the method we have before laid down, for the treatment of the diſtinct kind, ſufficing here. Spirit of vitriol was unneceſſary in the diſtinct kind.

14. I have now given the reader all my obſervations relating to the *ſmall pox*; and though they may perhaps in this cenſorious age be eſteemed of little moment, yet I have with great pains and care ſpent many years in making of them; nor had I now publiſhed them, if a deſign of benefiting mankind had not induced me to it, even at the expence of my reputation, which I am ſenſible will ſuffer on account of the novelty of the method. And yet I cannot conceive why a new way of curing a diſeaſe, not to be met with in *Hippocrates*, or *Galen*, (unleſs perhaps ſome paſſage in their writings have a forced interpretation put upon it) ſhould be diſliked, ſince the methods of cure appropriated by the modern phyſicians, not having been eſtabliſhed by thoſe two great lights of phyſic, may as reaſonably be rejected by ſome, as magnified by others. The *ſmall pox* not to be met with in *Hippocrates* or *Galen*.

15. And for the ſame reaſon it ſhould not ſeem ſtrange, that I have made ſome alteration in the method of curing thoſe fevers, which depend on ſuch conſtitutions as are epidemic with the ſmall pox. For if the *ſmall pox* never appeared in thoſe early ages, it follows likewiſe that ſuch fevers never exiſted. Now it is highly probable

Sect. 5. probable there was no small pox to be found at that time; for if this distemper had been as common then as it is now, I am of opinion it could not have been concealed from the sagacious *Hippocrates*, who, as he understood the history of diseases better, and has described them more accurately, than any of his successors, would also have left us, (according to his custom) a plain and genuine description of this disease.

Diseases have certain periods, and whence.

16. Hence therefore I conjecture, that diseases have certain periods, resulting from the secret and hitherto unknown alterations happening in the bowels of the earth, that is, according to the different age and continuance of the same. And that as some diseases have existed in former ages, that are now either quite extinct, or at least appear very seldom, as being wasted with age, such as the *leprosy*, and perhaps some others; so the diseases which now prevail, will at length vanish, and yield to other new species, of which indeed we can form no idea. This may be the case, whatever notions we form of this matter, who were born, as it were but yesterday, and to-morrow perhaps may die; nor are the practical observations of the ancients of much longer standing, if compared with the beginning of the world.

CHAP. V.

Of the epidemic Cough of the Year 1675, and the Pleurisy and Peripneumony which followed upon it.

The rise of an *epidemic* cough.

1. IN 1675, the season having continued unusually warm, like summer, till towards the end of *October*, and being suddenly succeeded by

by cold and moiſt weather, a cough became more frequent than I remember to have known it at any other time; for it ſcarce ſuffered any one to eſcape, of whatever age or conſtitution he were, and ſeized whole families at once. Nor was it remarkable only for the numbers it attacked (for every winter abundance of perſons are afflicted with a cough) but alſo on account of the danger that attended it. For as the conſtitution, both now and during the preceding autumn, eminently tended to produce the epidemic fever above deſcribed, and as there was now no other epidemic exiſting, which by its oppoſition might in ſome meaſure leſſen its violence, the cough made way for, and readily changed into the fever. In the mean while, as the cough aſſiſted the conſtitution in producing the fever, ſo the fever on this account attacked the lungs and *pleura*, juſt as it had affected the head even the week preceding this cough; which ſudden alteration of the ſymptoms occaſioned ſome, for want of ſufficient attention, *to eſteem this fever an eſſential pleuriſy or peripneumony*,* though it remained the ſame as it had been during this conſtitution.

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The fever remained the ſame, notwithſtanding the ſudden change of its ſymptoms.

2. For

* *To eſteem this fever an eſſential pleuriſy or peripneumony*, &c. Our author conſiders the affection of the lungs here only as a ſymptom of the fever deſcribed before, and this is arranged by Dr. Cullen, under his order, PROFLUVIA; and genus, CATARRHUS; which he defines,

"Often a contagious febrile affection; an increaſed excretion of the mucus from the glands of the membrane of the noſe, fauces, or bronchia: at leaſt efforts to produce ſuch an excretion."—Of which there are two ſpecies, one ariſing from *cold*; the other from *contagion*; all of which he conſiders as ſymptomatic; amongſt the laſt enumerating this diſeaſe here ſpoken of by SYDENHAM: The

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Exemplified in the manner of its ſeizure, and the cure.

2. For it began now, as it always did, with a pain in the head, back, and ſome of the limbs; *which were the ſymptoms of every fever* * of this conſtitution, except only that the febrile matter, when

The proximate cauſe of both which is owing to an increaſed afflux of fluids to the mucous membrane of the noſe, fauces, and bronchiæ, along with ſome degree of inflammation affecting theſe parts. — See *Synopſis Noſologiæ Methodicæ*, and *Practice of Phyſic*, under the head *Catarrhus.—W.*

* *Which were the ſymptoms of every fever, &c.* This deſcription is not ſufficiently full to enable us clearly to diſtinguiſh this ſpecies of fever; and here it will be neceſſary to enumerate the ſymptoms which attend *catarrh from cold* firſt; and this generally begins with ſome difficulty of breathing through the noſe; a dull pain and ſenſe of weight in the forehead; ſome ſtiffneſs in the motion of the eyes; and a diſtillation from the noſe, ſometimes from the eyes, of a thin fluid, often found ſomewhat acid, both by its taſte, and fretting the parts over which it paſſes; ſometimes cold ſhiverings are felt, at leaſt the body is more ſenſible than uſual to the coldneſs of the air; and the pulſe becomes, eſpecially in the evenings, more frequent than common: ſoon after, theſe ſymptoms are accompanied with ſome hoarſeneſs, and a ſenſe of roughneſs, and ſoreneſs in the trachea; and with ſome difficulty of breathing, attended with a cough, which ſeems to ariſe from ſome irritation felt at the glottis: the cough is generally at firſt dry, occaſioning pains about the cheſt, and more eſpecially in the breaſt. Sometimes, together with theſe ſymptoms, pains reſembling thoſe of the rheumatiſm are felt in ſeveral parts of the body, particularly about the neck and head. While theſe ſymptoms take place, the appetite is impaired, ſome thirſt ariſes, and a general laſſitude all over the body. Some degree of the *cynanche tonſillaris* often accompanies the catarrh; when this diſeaſe has been occaſioned by a violent cauſe; when it has been aggravated by miſmanagement; and eſpecially by freſh and repeated applications of cold, it often paſſes into a pneumonic inflammation, attended with the utmoſt danger.

With nearly the ſame ſymptoms the catarrh from contagion makes its appearance; though it comes on with more cold ſhiverings, and ſooner ſhews febrile ſymptoms, and theſe likewiſe in a more conſiderable degree; it runs the more

when it was copiouſly depoſited in the lungs and *pleura*, through the violence of the cough, occaſioned ſuch ſymptoms as belong to thoſe parts. But nevertheleſs, as far as I could obſerve, the fever was the very ſame with that which prevailed to the day when this cough firſt appeared; and this likewiſe the remedies to which it readily yielded plainly ſhewed. And though the pungent pain of the ſide, the difficulty of breathing, the colour of the blood that was taken away, and the reſt of the ſymptoms that are uſual in a pleuriſy, ſeemed to intimate that it was an *eſſential pleuriſy*; yet this diſeaſe required no other method of cure than that which agreed with the fever of this conſtitution, and did no ways admit of that which was proper in the *true pleuriſy*, as will hereafter appear. Add to this, that when a pleuriſy is the original diſeaſe, it uſually ariſes betwixt ſpring and ſummer; whereas the diſtemper we now treat of, begun at a very different time, and is only to be reckoned a ſymptom of the fever which was peculiar to the current year, and the effect of the accidental cough. Chap. 5.

3. Now in order to proceed in a proper manner to the particular method of cure, which experience ſhows to be requiſite both in this cough and in thoſe which happen in other Particulars to be conſidered, preparatory to the method of cure.

more ſpeedily through its courſe, which is commonly finiſhed in a few days; ſometimes it terminates by ſpontaneous ſweat, and this in ſome perſons produce miliary eruptions. It is, however, the febrile ſtate of this diſeaſe that is finiſhed in a few days; for the cough, and other catarrhal ſymptoms frequently continue longer; and often when they appear to be going off, they are renewed by any freſh application of cold.—Cullen's *Practice of Phyſic*.—*W.*

years,

Sect. 5. years, provided they proceed from the ſame cauſes, it is to be obſerved, that the *effluvia* which uſed to be expelled the maſs of blood by inſenſible perſpiration, are ſtruck in, and thrown upon the lungs, from the ſudden ſtoppage of the pores by cold, and, by irritating the lungs, immediately raiſe a cough. And the hot and excrementitious vapours of the blood being hereby prevented from paſſing off by perſpiration, a fever is eaſily raiſed in the maſs; namely, when either the vapours are ſo copious that the lungs are unable to expel them, or the inflammation is increaſed by the adventitious heat ariſing from the uſe of over-heating remedies, or too hot a regimen, ſo as ſuddenly to cauſe a fever in a perſon who was already too much diſpoſed to one. But of whatever kind the *ſtationary fever* be, which prevails the ſame year, and at that time, this new fever ſoon aſſumes its name, becomes of the ſame kind, and in moſt particulars reſembles it: though it may ſtill retain ſome ſymptoms belonging to the cough, whence it aroſe. In every cough, therefore, proceeding from this cauſe, it is ſufficiently manifeſt that regard muſt not only be had to the cough, but likewiſe to the fever that ſo readily ſucceeds it.

The method of cure delivered.

4. Relying on this foundation *I endeavoured to relieve* ſuch as required my aſſiſtance *by the following method:** if the cough had not yet cauſed a fever,

* *I endeavoured to relieve by the following method, &c.* The indications of cure here are ſimilar to thoſe of the fevers of the continued inflammatory claſs, to abate the reaction of the ſyſtem, determine the fluids to the ſurface of the ſkin, and ſubdue the cough: for which purpoſes, at firſt, if there be a neceſſity for leſſening the bulk of the circulating

a fever, and other ſymptoms, which, as we ſaid uſually accompany it, I judged it ſufficient to forbid the uſe of fleſh meats and all kinds of ſpirituous liquors, and adviſed moderate exerciſe, going into the air, and a draught of a cooling pectoral ptiſan to be taken between whiles. Theſe few things ſufficed to relieve the cough, and prevent the fever, and other ſymptoms uſually attending it. For as by abſtaining from fleſh and ſpirituous liquors, along with the uſe of cooling medicines, the blood was ſo cooled, as not eaſily to admit of a febrile impreſſion, ſo by the uſe of exerciſe thoſe hot *effluvia* of the blood, which ſtrike in, and occaſion a cough, as often as the pores are ſtopt by ſudden cold, are commodiouſly exhaled in the natural and true way, to the relief of the patient. Chap. 5.

5. With reſpect to quieting the cough, it is to be obſerved that opiates, ſpirituous liquors, and heating medicines uſed for this purpoſe are equally unſafe; for the matter of the cough being intangled and ſtiffened thereby, thoſe vapours which ſhould paſs off from the blood, in a gentle and gradual manner, by coughing, are retained in the maſs, and raiſe a fever. Opiates, ſpirituous liquors, and heating medicines unſafe.

circulating fluids, we muſt begin with bleeding, proportioning the quantity of the blood to be taken away, and the repetition of the operation, to the ſtrength of the conſtitution and urgency of the ſymptoms, and purſuing the antiphlogiſtic method; vomiting will alſo be neceſſary for promoting perſpiration, and relieving the lungs: theſe remedies ſhould be firſt applied, if the abſtemious regimen preſcribed by our author ſhould not be ſufficient to anſwer every ſalutary purpoſe, which alſo ſhould be perſiſted in during the uſe of medicines; and by giving ſmall doſes of antimonials very often every diſagreeable ſymptom ſoon vaniſhes. *W.*

And

Sect. 5. And this frequently proves very fatal to abundance of the common people, who, whilſt they unadviſedly endeavour to check the cough, by taking burnt brandy and other hot liquors, occaſion pleuritic or peripneumonic diſorders; and by this irrational procedure, render this diſeaſe dangerous, and often mortal, which of its own nature is ſlight, and eaſily curable. Neither do they err leſs, though they ſeem to act more reaſonably, who endeavour to remove the cauſe of the diſeaſe by raiſing ſweat; for though we do not deny that ſpontaneous ſweats frequently prove more effectual than all other helps in expelling the morbific cauſe, yet it is apparent that whilſt we attempt to force ſweat, we inflame the blood, and may poſſibly deſtroy the patient, whom we deſire to cure.

The cough ſometimes joined with feveriſh ſymptoms.

6. But it happens ſometimes, not only when the diſeaſe has been unſkilfully treated, in the manner above deſcribed, but alſo ſpontaneouſly, at the beginning of the illneſs, or in a day or two afterwards, eſpecially in tender and weakly perſons, that the cough is ſucceeded by alternate intervals of heat and cold, a pain in the head, back, and limbs, and ſometimes a tendency to ſweat, eſpecially in the night; all which ſymptoms generally followed the fever of this conſtitution, and were frequently joined with a pain in the ſide, and ſometimes with a conſtriction as it were of the lungs, which occaſioned a difficulty of breathing, ſtopped the cough, and increaſed the fever.

The feveriſh ſymptoms, how beſt relieved.

7. According to the beſt obſervation I could make, the fever, and its moſt dangerous ſymptoms, were beſt relieved by bleeding in the arm,

arm, *applying a bliſter to the neck*,* and giving a glyſter every day. In the mean time, I adviſed the patient to ſit up ſome hours every day, to forbear fleſh meats, and ſometimes to drink ſmall beer, ſometimes milk and water, and ſometimes a cooling and lenient ptiſan. If the pain of the ſide abated not in two or three days, but continued very violent, I bled a ſecond time, and adviſed the continuance of the glyſters. But with reſpect to glyſters, it muſt be carefully obſerved, either in this or other fevers, that they are not to be long and frequently uſed when the diſeaſe is in its decline; eſpecially in hyſteric women, and in men that are ſubject to the hypochondriac diſeaſe; for the blood and juices of ſuch perſons are eaſily changed, and ſoon agitated and heated, whence the animal œconomy is diſturbed, and the febrile ſymptoms continued beyond the uſual time. Chap. 5.

A caution concerning glyſters.

8. But to return to our ſubject: whilſt by this means we allowed time that the blood might gradually free itſelf from thoſe hot par- Rough methods, and abundance of remedies, very pernicious.

* *Applying a bliſter to the neck, &c.* This will be rarely neceſſary, unleſs there appears to be oppreſſive ſymptoms of inflammation affecting the lungs, and then the application of the bliſter will be better upon the cheſt, as the ſeat of pain may point out: and in order to appeaſe the cough we muſt endeavour to allay the irritation by ſheathing the acrimony of the mucus occaſioning it with mucilaginous and oily demulcents mixt with nitre; and inhalation of the vapour of warm water impregnated with vinegar may be a beneficial aſſiſtant.

Notwithſtanding all which, ſhould the cough continue, and there ſhould be evident ſigns of the inflammatory ſymptoms having abated, opiates may be ſafely adminiſtered; though not before, becauſe they might increaſe the difficulty of breathing and other inflammatory ſymptoms. *W.*

Sect. 5. ticles that were lodged in the *pleura* and lungs, all the ſymptoms uſually went off in a gentle manner; whereas when the diſeaſe was treated in a rough way, by giving abundance of remedies, it either deſtroyed the patient, or rendered it neceſſary to repeat bleeding oftener than the diſeaſe required, or would ſafely bear, in order to ſave his life: for though repeated bleeding anſwers every purpoſe in the true pleuriſy, and is alone ſufficient for the cure thereof, provided there be no hindrance from a hot regimen and heating medicines, yet here, on the contrary, it ſufficed to bleed once, or at moſt twice, in caſe the patient refrained from bed, and drank cooling liquors. And I never found it neceſſary to bleed more frequently, unleſs the ſymptoms relating to the *pleura* and lungs were much increaſed by ſome adventitious heat, and even in this caſe the practice was not wholly void of danger.

A *malignant pleuriſy* ſometimes happens.

9. Upon this occaſion I ſhall briefly deliver my ſentiments with reſpect to a very trite and common opinion, *viz.* that a pleuriſy is found to be of ſo malignant a nature in ſome years, *that it will not then bear bleeding*,* at leaſt not ſo often as this diſtemper ordinarily demands. Now

* *That it will not then bear bleeding, &c.* This is certainly true; and we ſhould endeavour to aſcertain when it may be performed with ſafety, and when it ought to be omitted. Dr. Swan directs us to attend to the reigning epidemic of the year; and let that be our direction alſo with reſpect to its repetition, and the quantity of the blood to be taken away. Though ſome uſe may be derived from ſuch an obſervation, yet ſtill I ſhould depend on the nature of the conſtitution of my patient, and omit or repeat the operation as particular appearances might point out: if the patient is of a ſtrong plethoric habit, with a full,

Now though I conceive that a true and *essential* pleurisy, which, as shall hereafter be observed, happens indifferently in all constitutions, does in all years equally indicate repeated bleeding; yet it sometimes happens that the peculiar epidemic fever of the year, from some sudden alteration of the manifest qualities of the air, readily throws off the morbific matter upon the *pleura* and lungs, whilst the fever notwithstanding continues exactly the same. Wherefore in this case, though bleeding may be used to abate this symptom when it is very violent, yet generally speaking, little more blood ought to be taken away than is required by the fever whereon this symptom depends; for if the fever be of a kind that will bear frequent bleeding, it may likewise be repeated in the pleurisy, which is a symptom thereof; but if the fever will not bear repeated bleeding, it will prove prejudicial in the pleurisy, which will go off with, or last as long as the fever does. And in my judgement this was the case in the *symptomatic pleurisy* that accompanied the fever which prevailed here at the same time the cough began, namely, in winter, in 1675; and therefore I must observe that whoever, in the cure of fevers, hath not always in view the constitution of the year, inasmuch as it tends to produce some particular epidemic

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Repeated and copious bleeding bad herein.

full, tense, hard, frequent pulse, bleeding can never be wrong; if the blood should be sizy, it is often right, but not always, for though there should be a coriaceous appearance on the surface, should the crassamentum or cruor below be of a loose texture, which I have repeatedly seen, bleeding should not be persisted in, as it so rapidly tends to weaken the crasis of the blood, and dispose it to run into a putrescent acrimony, it perceptibly increases the mischiefs we should labour to conquer. *W.*

Sect. 5. diſeaſe, and likewiſe to reduce all the contemporary diſeaſes to its form and likeneſs, proceeds in an uncertain and fallacious way.

A pain in the ſide removed, &c. without repeated bleeding.

10. In the month of *November*, of the abovementioned year, I attended the eldeſt ſon of Sir *Francis Windham* in this fever. He complained of a pain in his ſide, and the other ſymptoms that attended thoſe who had this diſeaſe. I bled him but once, applied a bliſter to his neck, injected glyſters every day, gave him cooling ptiſans and emulſions, and ſometimes milk and water, or ſmall beer to drink, and adviſed his ſitting up a few hours every day; and by this method he recovered in a few days, and a purge completed the cure.

The cough without a fever how to be treated.

11. But it muſt be remarked, that though theſe were the common ſymptoms which ſucceeded the cough, during this winter, yet the cough, unattended with theſe ſymptoms, was more prevalent at the ſame time. But this required neither bleeding nor glyſters, provided a fever was not occaſioned by a hot regimen, or heating medicines; it ſufficed to allow the benefit of the open air, and to forbid the uſe of fleſh, wine, and ſuch ſpirituous liquors, which are apt to cauſe a fever. I likewiſe ordered *the following troches to be taken often*,* which indeed are the beſt I know for ſtopping coughs occaſioned by taking cold.

* *The following troches to be taken often, &c.* In habitual coughs, unattended with a fever, where the matter requires to be thinned in order to facilitate its expectoration, theſe troches of our author will be ſerviceable; but where the matter is thin, acrimonious and irritating, the *trochiſci glycyrrhizæ*, or *e nitro* of the new London Pharmacopœia, are infinitely better calculated to ſtop the cough. *W.*

Take

Take of ſugar candy, two pounds and a half; boil it in a ſufficient quantity of common water till it ſticks to the fingers ends: then add of powder of liquorice, elecampane, and ſeeds of anniſe and angelica, each half an ounce; powder of Florentine *orrice-root, and flour of brimſtone, each two drams; oil of anniſeed, two ſcruples; make the whole into troches with the requiſite art; which the patient ſhould always carry in his pocket, taking one of them frequently.* Chap. 5. Pectoral troches.

12. Before I conclude this eſſay on epidemic diſeaſes, I muſt anſwer an objection that I foreſee will be made to part of it, *viz.* that it does not ſeem ſufficient to oppoſe the *malignity* that accompanies many of theſe diſeaſes. It is not my deſign, nor am I able, to confute the received opinion of the learned, whether ancients or moderns, in relating to *malignity, ſince there are plain proofs of it in moſt epidemics.* * I only beg leave to give my ſentiments of the nature of this malignity, to prove the reaſonableneſs of my practice. For I may ſay, with the very learned *Scaliger*, "I do not contend for my "own opinion, but for reaſon, or what carries "the appearance of it, without regarding what "ſome cenſorious perſons aſſert."

* *Since there are plain proofs of it in moſt epidemics, &c.* This is diſcoverable from the nature of the attack, and attendant ſymptoms, which ſo immediately ſucceed; for they begin very ſuddenly with a ſlight coldneſs and ſhivering, a great loſs of ſtrength immediately enſues, and the pulſe at the ſame time is ſmall, quick, and contracted; an erect poſture eaſily occaſions fainting, the patient is perpetually drowſy, but cannot ſleep, and if he does, a greater decay of ſtrength ſucceeds thereupon, with a *delirium*; he complains of no great pain, thirſt, or other troubleſome ſymptom, and yet is uneaſy, and at length the extremities grow cold, the pulſe begins to intermit, and can no longer be perceived in the wriſt, and death is at hand.

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Malignity explained.

13. I conceive then that the malignity in epidemics, whatever its specific nature be, consists and centers in very hot and spirituous particles, that are more or less opposite to the nature of the circulating fluids, because such particles only are capable of producing so sudden an alteration of them, as is frequently observed in malignant diseases. And I judge that these hot and spirituous particles act chiefly by way of assimilation; because by the law of nature every active principle endeavours to produce its like, and to reduce and mould whatever opposes it to its own nature. Thus fire generates fire, and a person seized with a malignant disease infects another by an emission of spirits, which soon assimilate the juices to themselves, and change them into their own nature.

In what kind thereof sweating is proper.

14. From these considerations it follows, that it is best to expel these particles by sweat, since by this means the disease would be immediately eradicated. But experience contradicts this, and shews it cannot be done in every kind of malignity. For though in the *plague*, the pestilential particles, both by reason of their exceeding subtility, and their residing in the most spirituous parts of the blood, are dissipable, and may be expelled by a continued sweat; yet in other fevers, where the assimilating particles are less subtile, and mixed with grosser humours, the malignant fuel cannot only not be expelled by sweat, *but is frequently increased by the diaphoretics given to promote it.** For the more active those

* *But is frequently increased by the diaphoretics, &c:* This was the case undoubtedly in our author's time, when this class consisted of strongly-heating medicines, by which the circu-

thoſe hot and ſpirituous particles are rendered by heating medicines, the more is their power of aſſimilating increaſed; and the more likewiſe thoſe juices are heated whereon they act, ſo much the more readily are they aſſimilated, and yield to the impreſſions thereof. Whereas contrariwiſe, it is reaſonable to think that medicines of an oppoſite nature do not only reſtrain the action of the hot and acrid particles, but likewiſe thicken and ſtrengthen the juices, ſo as to enable them to undergo, or even to conquer the force of the morbific ſpirits. And here I may appeal to experience, which hath taught me that the purple ſpots in fevers, and the black eruptions in the ſmall pox, increaſe more readily in proportion as the patient is heated; and that according to the coolneſs of the regimen employed, which is very ſuitable to them, they are uſed to decreaſe and be diminiſhed. Chap. 5.

15. Now were it to be inquired whence it happens, ſince malignity conſiſts in ſuch hot and ſpirituous particles, that ſo few ſigns of a fever are frequently found in the moſt malignant diſeaſes; it might be anſwered, firſt, that in the

Why malignant diſeaſes have often few febrile ſymptoms.

circulatory powers were greatly increaſed, and the fluids puſhed about too rapidly; by which means every febrile ſymptom was aggravated, and a train of freſh ones, which did not belong to the complaint, brought on; but certainly in all fevers, a moderate diaphoreſis induced, and kept up through the whole courſe of the diſeaſe by gentle means, ſuch as render the cuticular pores conſtantly permeable, by preventing ſpaſmodic conſtriction of the ſmall capillary veſſels, without increaſing the power of re-action of the vaſcular ſyſtem by ſtimuli, is extremely neceſſary, and highly beneficial, by hindering the internal parts of the ſyſtem from being loaded with congeſtions, and avoiding thoſe troubleſome ſymptoms which occur from this cauſe alone. *W.*

Sect. 5. *plague*, the moſt remarkable inſtance of malignity, the morbific particles are ſo very ſubtile, eſpecially in the beginning, that though they paſs through the blood with the utmoſt velocity, and *(the ſpirits being, as it were, fixed or congealed*)* raiſe no ebullition therein, whence the patient dies without a fever.

16. But in other epidemics, accompanied with a leſs degree of malignity, the febrile ſymptoms are ſometimes ſo ſlight, from the diſturbance raiſed in the blood by the morbific particles contained in the maſs, that nature being in a manner oppreſſed, is rendered unable to produce the more regular ſymptoms that are ſuitable to the diſeaſe, and almoſt all the phenomena that happen are irregular, by reaſon of the entire ſubverſion of the animal œconomy; in which caſe the fever is often depreſt, which of its own nature would be very high. Sometimes alſo fewer ſigns of a fever appear than the nature of the diſeaſe requires, from the tranſlation of the malignant cauſe, either to the nervous ſyſtem, to ſome other parts of the body, or to ſome of the juices not contained in the blood, whilſt the morbific matter is yet turgid.

Malignity, how moſt conveniently conquered.

17. But which way ſoever it be, I cannot even ſo much as conjecture what other method of cure ought to be uſed to conquer the malignity, beſides that which is ſuitable to the epi-

* *The ſpirits being, as it were, congealed and fixed, &c.* The ſuddenneſs of the diſſolution, here, ſeems rather to ariſe from the ſtrongly ſedative power of the morbid miaſmata, which inſtantaneouſly deſtroys the motion of the living ſolids, and thus renders the conſtitution incapable of experiencing the ſtimulus of the vital principle, by which alone life is maintained. *W.*

demic

demic wherewith it is joined. So that whether the epidemic be of the number of those wherein the febrile matter must first be concocted, and soon after properly expelled by sweat; or of those that are terminated by some eruption; or of those that require the assistance of art to make way for them: in all these kinds, the malignity, which is the concomitant of the disease, will rise, and sink, continue, and go off with the original disease; and consequently whatever evacuation agrees in general with the fever, agrees likewise with the malignity, how much soever these evacuations may be of a contrary nature to each other. Hence the malignity that accompanies autumnal intermittents, and also the continued fever, which is of the same nature, will yield to a sweat, which follows concoction as its effects. And the seasonable suppuration of the pustules in the small pox will carry off the malignity attending that disease, and so of the rest: in all which the peculiar species of malignity is best overcome by those methods which prove most successful in the cure of those diseases whereto it belongs, whether by this or any other procedure. This appears evident to me from reason, and is likewise universally confirmed by experience. Chap. 6.

CHAP. VI.

The Recapitulation.

1. AND thus we have, at length, shewn, that the space of years which furnished us with the preceding observations, produced five different Five kinds of constitutions described in the foregoing sheets.

Sect. 5. different kinds of conſtitutions, that is, five peculiar diſpoſitions of the air, productive of as many peculiar epidemic fevers. But the firſt of theſe fevers, which prevailed in thoſe years wherein autumnal intermittents chiefly raged, ſeems to be the only one, as far as I have hitherto obſerved, in which nature regulated all the ſymptoms in ſuch manner as to fit the febrile matter, prepared by proper concoction for expulſion, in a certain time, either by a copious ſweat, or copious perſpiration; and upon this account I call it the *depuratory fever*.* And in reality I am inclined to believe, that this is the capital and *primary* fever of nature, as well with reſpect to the regular method which nature uſes in promoting and accompliſhing the digeſtion of the morbific matter in a limited time, as alſo becauſe it occurs more frequently than other fevers.

Intermittents, the moſt frequent diſorders.

2. For it is probable that intermittent fevers oftener prevail epidemically than all other diſeaſes, if thoſe authors may be credited who have wrote ſo largely of their frequency in former ages, whatever may be the reaſon of their appearing ſo ſeldom ſince the plague depopulated this city; for the peſtilential fever was the forerunner of all the inflammatory fevers that afterwards ſucceeded. But I am miſtaken if the neceſſary and excellent aphoriſms, left us by *Hippocrates*, and other ancient phyſicians, are not adapted to the *primary* fever above mentioned, by means of which it is to be ſo regulated,

* *I call it the depuratory fever, &c.* This is arranged by Cullen from Sauvages, amongſt the varieties of *ſynochus*, being neither purely inflammatory nor nervous, but in different ſtages belonging to each. *W.*

that

that the febrile matter may be prepared for a proper *criſis* by ſweats: nor do I perceive how theſe aphoriſms can be adapted to the ſucceeding kinds of fevers, which being of a very different nature are rarely cured by ſuch a method, as enables us to cure thoſe diſeaſes, provided we embrace and purſue it to the end. But however this be, it is worth obſerving, that this fever, which depended on that conſtitution wherein intermittents prevailed over the reſt (if it proved of long continuance, or if the patient was weakened by large evacuations) ſometimes changed to an intermittent; whereas the fevers that prevailed in the following years, though they continued very long, ſcarce ever became intermittent; which was a pretty clear proof, that the continued fever and thoſe intermittents differed little in their nature from each other. Chap. 6.

3. Now if I ſhould be aſked in what manner the ſpecies of a continued fever may be gathered from the ſigns ſet down by me in the deſcription of fevers, ſince every particular fever is moſtly attended with thoſe ſymptoms which all fevers have in common, as heat, thirſt, reſtleſſneſs, and the like; I anſwer, it is indeed difficult, but not impoſſible, in caſe all the circumſtances enumerated in the preceding hiſtory be thoroughly attended to, eſpecially to a phyſician reſiding in a city, or other populous place. For let us ſuppoſe that he is called to attend a perſon in a continued fever; he has this in the firſt place to aſſiſt him to form a right judgement of the ſpecies, *viz.* (1.) he may eaſily learn, either from his own obſervation, or the relation of others, what other diſeaſes beſides this fever rage epidemically in thoſe places, and

The ſpecies of a fever, how diſcovered.

Sect. 5. and of what kind they are; which being known, he will be no longer in doubt of what kind that fever is, which accompanies the other then reigning epidemic. For though the fever may poſſibly appear with ſuch ſymptoms only as are common to all fevers, eſpecially if it be diſturbed by a method of cure directly contrary to it, yet other epidemics will clearly diſcover the ſigns that are peculiar to its nature and genius.

4. Thus, for inſtance, whoever ſees the ſmall pox, and is well acquainted with the hiſtory of it, will eaſily conjecture, either by the day on which the eruptions came out, or by their ſize, colour, and the like, to what kind of *ſmall pox* this particular ſort is to be referred; and when he has once diſcovered that ſort of ſmall pox which prevails chiefly in that year, and in thoſe places, he will be no ſtranger to the ſpecies of any fever that then and there prevails. And undoubtedly if I were perfectly acquainted with the hiſtory of diſeaſes, which I do not pretend to, as I ſhould not ſcruple, upon ſeeing any epidemic, to declare of what kind the reigning fever of that time was, though I had never ſeen it; ſo likewiſe having ſeen any fever, it would ſufficiently teach me what epidemic accompanied it, *viz.* if the meaſles, ſmall pox, or dyſentery, *&c.* For ſome particular ſpecies of theſe diſeaſes, as well as a peculiar fever, conſtantly attends every particular conſtitution.

5. (2.) Beſides the ſigns, which an attention to the contemporary epidemics affords, *the ſymptoms of every fever let in ſome light for diſcovering* * the

* *The ſymptoms of every fever let in ſome light, &c.* The world is much indebted to the labours of the noſologiſts, who

the ſpecies thereof. For though, as we intimated above, all fevers have ſome ſymptoms in general, yet there are certain diſtinguiſhing ſigns Chap. 6.

who have endeavoured to form particular plans, for the diſtinguiſhing different diſeaſes, by collecting the pathognomic ſymptoms of each, and arranging them under different heads: for by this method if a practitioner can only retain a few of thoſe which are the conſtant concomitants of any diſeaſe, he will be led ſoon to diſcover its ſpecific nature; an example of which we ſhall preſent our readers with from Dr. Cullen, who we look upon to be the moſt accurate of the noſologiſts, and who has favoured the world with the moſt conciſe and clear work on this ſubject:

In diſeaſes there are four diviſions; CLASS, ORDER, GENUS, SPECIES; we ſhall, as we are on the ſubject of fevers, confine ourſelves to their arrangement.

The CLASS, belonging to which is called,

PYREXIÆ —— FEBRILE AFFECTIONS.

The characteriſtic marks of which are,

After a chilline's, the pulſe becomes frequent; the heat of the body greater than natural; many of its functions imperfect, with a diminution of the ſtrength, particularly of the limbs.

The ORDER.

FEBRES —— FEVERS.

Which are diſtinguiſhed by

Languor, laſſitude, and other ſigns of debility having preceded, febrile affections come on without any primary local diſeaſe. This order is divided into two ſections:

INTERMITTENTS, and CONTINUED FEVERS.

Sect. I. INTERMITTENTS.

Theſe are fevers, ariſing from marſh miaſmata, conſiſting of many paroxyſms, an intermiſſion, or at leaſt a remiſſion of febrile affection interpoſed, returning with a remarkable exacerbation, and for the moſt part with chilneſs or ſhivering, having only one paroxyſm every day.

Now of intermittents there are different kinds, theſe are called GENERA; and are divided according to the periods of their fits returning, which we have before ſpecified into, G. 1. TERTIANS; G. 2. QUARTANS; and G. 3. QUOTIDIANS; amongſt which are enumerated the REMITTENTS of other authors.

Sect.

Sect. 5. ſigns which nature has particularly affixed to every ſpecies; but as theſe are more latent and obſcure, they are uſually diſcovered only by very

Sect. II. CONTINUED FEVERS.

Theſe neither have intermiſſions, nor ariſe from marſh miaſma, but are accompanied with remiſſions and exacerbations, though not very remarkable, having two paroxyſms every day.

Of theſe, too, there are different kinds, or GENERA.

Gen. 4. SYNOCHA; or Inflammatory Fever.

This is known by, The heat being much increaſed; the pulſe frequent, ſtrong, and hard; the urine high coloured; the functions of the ſenſorium a little diſturbed.

Gen. 5. TYPHUS; or Nervous Fever.

This is a contagious diſeaſe; a little increaſe of heat; the pulſe ſmall, weak, and moſt commonly frequent; the urine not much altered; the functions of the ſenſorium greatly diſturbed; and the ſtrength much diminiſhed.

Gen. 6. SYNOCHUS; or Mixed Fever.

A contagious diſeaſe alſo; a fever compoſed of the preceding SYNOCHA and TYPHUS; in the beginning, the former exiſting; in the progreſs, and towards the end, the latter.

Now all theſe genera have different ſpecies belonging to them, which form the laſt diviſion; which ſpecies have their varieties.

In order, therefore, to diſcover the particular nature of any fever, we muſt advert to the ſymptoms, and as we find thoſe of one or the other genus prevalent, we may on that head be certain to which it moſt properly belongs, and by comparing it more diffuſively, inform ourſelves of what ſpecies it is, or what variety; by conſulting thoſe enumerated under the general term, or diſtinguiſh whether it deviates ſo far from the whole ſet down in the catalogue, as to merit a diſtinct conſideration.

This mode of acquiring information is one of the greateſt improvements of the medical art, to which our author has in ſome degree a juſt claim, as ſupplying the hint; and is the reſult of that diligent and accurate obſervation he often ſo forcibly, through the courſe of his works, endeavours to inculcate, and by which mankind are, and will continue to be ſo greatly benefited.

There

very diligent and accurate obſervers. Amongſt theſe diſtinguiſhing ſigns, I have always reckoned that *ſweating* or *dryneſs*, at a particular time of the diſeaſe, chiefly ſhewed the ſpecies of the fever, in caſe the fever had not been forced from its own natural ſtate by an improper method. And this manifeſtly appeared to me in all the epidemic fevers, which have been treated of in theſe obſervations. Chap. 6. Sweating or dryneſs, principal diſtinguiſhing ſigns.

6. To give ſome inſtances of this: in thoſe fevers which prevailed upon the decline of autumnal intermittents, the external parts were dry, nor was there the leaſt ſign of ſweat before the concoction of the febrile matter, which was generally completed on the *fourteenth* day: and in this caſe it was very dangerous to raiſe a ſweat; a *delirium*, and other fatal ſymptoms being immediately occaſioned thereby. In the peſtilential fever, which followed this, and preceded all the ſubſequent inflammatory fevers, no ſpontaneous ſweat appeared, but a ſweat might be raiſed in the beginning, by exhibiting ſudorifics, and as ſoon as it flowed all the ſymptoms went off. In the next ſucceeding fever, which accompanied the ſmall pox in thoſe years where- Exemplified.

There is another genus of fevers mentioned by almoſt all noſologiſts, under the term, FEBRIS HECTICA, which Dr. Cullen defines,

A fever returning every day; with meridian and evening acceſſions; a remiſſion, very rarely an intermiſſion, in the morning; attended moſt commonly with night ſweats, and urine depoſiting a branny, lateritious ſediment. But this he does not admit as one of his genera, becauſe he always obſerved it to be ſymptomatic: and indeed almoſt all which are arranged as ſpecies under this genus by SAUVAGES are certainly of that kind, evidently ariſing from ſome other diſeaſe inherent in the habit. *W.*

in

Sect. 5. in it proved regular, the patient was ſubject to profuſe ſpontaneous ſweats in the beginning of the illneſs, but by encouraging them, all the ſymptoms were increaſed. In the two fevers that accompanied the two irregular kinds of the ſmall pox, and the dyſentery, the ſweat was likewiſe irregular, and generally appeared only in the beginning of the diſeaſe, though the ſweat which accompanied the former fever, was ſomewhat more copious than that which accompanied the latter; but neither afforded any relief, becauſe the ſweat proceeded not from previous concoction, but from the confuſed motion of the noxious particles.

7. But it ſeems exceeding difficult to me to diſcover the ſpecies of a new fever in the firſt year of a conſtitution, when no body has ſeen an example of it, or can imagine what epidemic diſeaſes may hereafter ariſe, which are generally preceded by this fever. It would be tedious to enumerate all the particulars that occurred in thoſe years of which I have treated, whereby it might appear that many manifeſt ſigns were ſuggeſted by nature, to enable us to make ſuch diſcovery; and conſequently this knowledge neceſſarily depends upon a careful and accurate obſervation of all circumſtances.

8. But though it be difficult, if not impoſſible, to aſcertain the ſpecies of a new fever at its firſt coming, yet with reſpect to the cure, the indication to be taken from ſuch things as do good or miſchief, at leaſt remains to aſſiſt us therein; by means of which we may by degrees find out a way to ſecure the patient, provided we do not hurry on too faſt, which indeed I eſteem to be moſt particularly pernicious, and to have deſtroyed

deſtroyed more perſons in fevers than any other thing whatſoever. Nor do I think it below me to acknowledge, with reſpect to the cure of fevers, that when no manifeſt indication pointed out to me what was to be done, I have conſulted the ſafety of my patient, and my own reputation, moſt effectually, by doing nothing at all; for whilſt I carefully attended to the diſeaſe, in order to cure it in the beſt and ſafeſt manner, the fever either went off gradually of itſelf, or came to ſuch a ſtate as ſhewed what medicines were to be uſed to remove it. But it is much to be lamented that abundance of ſick perſons are ſo ignorant, as not to know that it is ſometimes as much the part of a ſkilful phyſician to do nothing at all, as, at others, to exhibit the moſt effectual remedies; whence they not only deprive themſelves of the advantages of a fair and honourable procedure, but impute it either to negligence or ignorance; whereas *the moſt illiterate empiric knows how to heap medicine on medicine as well as the moſt prudent phyſician*,* and uſually does it in a much greater degree. Chap. 6.

9. And

* *The moſt illiterate empiric knows how to heap, &c.* I cannot perfectly coincide in this opinion of our author; for if a prudent phyſician will condeſcend to be guilty of ſuch mal-practice, he can do it manu tutâ; but the ignorant empiric, unconſcious of that ſympathy that exiſts between the ſtomach and machine in general; not knowing the powers of medicine, nor the effect which may be produced by their quantity or quality; having no idea of the operations of nature; totally blind to the action of the animal œconomy; and fancying ſomething always muſt be done, though to what purpoſe he is a ſtranger; ſeldom contents himſelf with non-ſignificants: *mercury*, *bark*, *opium*, and *antimony*, he deals forth with a laviſh hand, converting theſe noble remedies,

Sect. 6.

9. And now I have communicated the obſervations I have hitherto made (at leaſt ſuch as could be brought into ſome method) with reſpect to the ſpecies of *epidemic diſeaſes*, and the order wherein they ſucceeded from 1661 to the end of 1675; when the ſmall pox and the continued fevers which accompanied it, and had prevailed for near two years, became more gentle, and ſeemed to be going off. As to the diſeaſes that may hereafter ſucceed, they are only known to that omniſcient Being from whom nothing is hid.

SECTION VI. CHAP. I.

Of intercurrent Fevers.

Stationary fevers prevail according to their order.

1. THE obſervations of the preceding years, above delivered, ſufficiently ſhew that ſome fevers are deſervedly entitled *ſtationary fevers*; I mean ſuch as ariſe from ſome peculiar conſtitution of a particular year not yet ſufficiently known. Every one of theſe prevails in its order, and rages with great violence, having, as it were, the aſcendant over all the reſt during that continued courſe of years. Whether there are any other ſpecies beſides thoſe juſt mentioned, or whether they ſucceed each other in a certain term of years in a conſtant and invariable order, or whether it be otherwiſe, I have

from his ignorance, into deleterious poiſons, and launches thoſe unfortunate patients, who fall under his care, with an unbluſhing cheek into eternity. *W.*

not

not yet been able to discover. But there are also other continued fevers, which, though they sometimes rage less, and at other times more severely, yet because they are mixed with all kinds of *stationary* fevers, and likewise with each other indifferently in the same year, I conceive they should be called *intercurrents*. I shall in the following sheets communicate all that I have learnt from observation concerning the nature of these fevers, and the method of curing them: they are, the *scarlet fever*, *pleurisy*, *bastard peripneumony*, *rheumatism*, *erysipelatous fever*, *the quinsy*, and, perhaps, some others.

Chap. 1.

Intercurrents mixt with these and each other indiscriminately.

Intercurrents enumerated.

2. But as all these diseases are, during their state, or at least were, accompanied with a fever, till it went off, the febrile matter being thrown upon some particular part, according to the nature of the distemper, I question not that the fever is to be accounted the primary disease, and that the other disorder, whence those diseases generally derive their name, are symptoms, which chiefly regard either the peculiar manner of the *crisis*, or the part principally affected. But provided the thing be agreed upon, *I will not contend about names*; *though* * I take the

The *fever* the original disease in all.

* *I will not contend about names*; *though I take*, &c. The confusion and disagreement amongst physicians relative to this matter, occasioning such an unnecessary number of multiplications, divisions, and subdivisions of diseases, and names, was formerly complained of with great justice; but these inconveniences are now pretty well removed: for, almost all diseases, be they of what species they may, are reducible to some class, order, and genus, and are discoverable from being attended by the pathognomic symptoms which distinguish the class, order, and genus to which they belong: hence all fevers appertain to some of the six genera we have before enumerated; and though they take

Sect. 6. the liberty to call a diſeaſe by the particular name which pleaſes me beſt.

Intercurrents are ſometimes epidemic.

3. It muſt be obſerved, that as the *ſtationary fevers*, of which we have treated above, prevailed more or leſs epidemically, as we ſaid, according as they were favoured by the conſtitution of years, reſulting from a ſecret and inexplicable temperature of the air; ſo likewiſe did theſe *intercurrents* ſometimes, but leſs frequently. For though they generally ariſe from ſome peculiar diſorder of particular bodies, whereby the blood and juices are ſome way vitiated, yet ſometimes they proceed *mediately* from ſome general cauſe in the air, which, by its manifeſt qualities, ſo diſpoſes the human body, as to occaſion certain diſorders of the blood and juices, which prove the immediate cauſes of ſuch *epidemic intercurrents*. As for inſtance, when a ſharp froſt, which has laſted a long time, and continues late in the ſpring, is ſuddenly ſucceeded with warmer weather, *pleuriſies*, *quinſies*, and the like diſeaſes uſually ariſe, whatever be the general conſtitution of the year. And becauſe theſe diſeaſes, which happen indif-

their names very often from the moſt perceptible or oppreſſive ſymptom, which by no means points out their ſpecific nature, yet this we can diſcover by reducing them to their peculiar genus: thus, for inſtance, the ſmall pox is a contagious fever, taking its name from the eruption; now this fever may either be the *ſynocha*, or *typhus*, which requires different modes of management, it is therefore neceſſary for us to know which is the exiſtent fever, before the eruption can give us any proof in this particular; but by enumerating the ſymptoms we can diſcover its nature preciſely, and thus be directed in taking the meaſures the moſt ſalutary for our patients, and preventing great miſchief which would otherwiſe accrue from an error in this point. *W.*

ferently

ferently in all years, do ſometimes rage as epidemically as thoſe which continue only for a certain courſe of years, we chuſe to call them *intercurrents*, in order to diſtinguiſh them from the latter. Chap. 1.

4. But notwithſtanding the conſiderable difference there is between theſe two kinds of fevers, with reſpect to the cauſes proceeding from the air, yet they frequently agree in other external and *procatarctic* cauſes. For not to mention *infection*, which ſometimes communicates ſtationary fevers, and *ſurfeits*, which give riſe to both ſtationary and intercurrent fevers, the manifeſt external cauſe of the greater part of fevers is to be ſought for hence; either (1.) a perſon hath left off his clothes too ſoon, or (2.) imprudently expoſed his body to the cold after being heated with violent exerciſe; whence the pores being ſuddenly cloſed, and the perſpirable matter retained in the body, that would otherwiſe have paſſed through them, ſuch a particular kind of fever is raiſed in the blood, as the then reigning general conſtitution, or the particular depravity of the juices, is moſt inclined to produce. And indeed I am of opinion, that abundance more have been deſtroyed by this means than by the *plague*, *ſword*, and *famine* together; for if a phyſician examines his patient ſtrictly concerning the firſt occaſion of the diſeaſe, he will generally find it to proceed from one of theſe cauſes, provided it be of the number of thoſe acute diſeaſes we have treated of above. Upon this account I always adviſe my friends never to leave off any wearing apparel till a month before Midſummer; and not

Wherein *ſtationary* and *intercurrent* fevers agree.

Moſt fevers occaſioned of catching cold.

Sect. 6. to expoſe themſelves to the cold after being heated by exerciſe.

Moſt *intercurrents* are *eſſential diſeaſes.*

5. But it muſt here be carefully remarked, that though the diſeaſes I am now to treat under the title of *Intercurrents*, were moſt, if not all of them, *eſſential* diſeaſes; yet frequently certain diſorders happen in *ſtationary* fevers, reſembling theſe *intercurrents* as to the phenomena, and likewiſe characterized by the ſame name, which however are manifeſt ſymptoms of thoſe fevers. Now in this caſe they are not to be treated by the method which is to be uſed when they are eſſential diſeaſes, but rather by that which the fever requires, whereof they are now ſymptoms, which method is only to be ſlightly adapted to their particular cure; but, in general, great attention is to be had to the fever of the year, and to find out the eaſieſt method of conquering it, whether by bleeding, ſweating, or any other procedure: for if this be diſregarded, we ſhall frequently miſtake, to the great detriment of the patient. Should it be objected, that the diſorders under conſideration, which I term *eſſential*, are in reality only ſymptoms, I reply, that perhaps they may be ſymptoms with reſpect to the fever whereto they properly belong, but they are at leaſt ſymptoms of fevers which always neceſſarily produce them. To exemplify this matter: in an *eſſential pleuriſy* the fever is of ſuch a nature, as always to depoſite the morbific matter upon the *pleura*; in an *eſſential quinſy*, of ſuch a nature as always to throw off the morbific matter upon the throat; and thus it happens in the reſt: whereas, when any one of the above-mentioned diſeaſes ſuc-

When not ſo, how they are to be treated.

ceeds

ceeds a fever that belongs to a particular constitution of years, and is dependent thereupon, it is then produced *accidentally* only, and no way necessarily: for which reason there is a remarkable difference between them. Chap. 1.

6. But, in order *to distinguish rightly between essential and mere symptomatic disorders,** it is of moment to consider that the same symptoms which accompany any particular *stationary fever* at the beginning, will likewise happen at the same time in a *pleurisy*, or *quinsy*, when these are only accidental symptoms of such a fever. We had a proof of this in the above-mentioned *symptomatic pleurisy*, that succeeded the fever which prevailed in this winter of 1675. For all that were seized with the *pleurisy* were afflicted in the beginning with a pain in the head, back, and limbs, which were the most certain and common symptoms of all those fevers that preceded the *pleurisy*, and continued after that

Essential and symptomatic disorders, how to be distinguished.

* *To distinguish rightly between essential and symptomatic disorders, &c.* This distinction is highly necessary to be observed; for sometimes those very affections which are in one case only concomitants of a disease, in another constitutes the disease itself; some fevers themselves are often only symptoms: Dr. Swan says, Essential diseases are those which are always attended with such a distinguishing train of symptoms, as manifestly appear more or less in every person that is seized with them, and depend upon the genuine and invariable nature of the disease. But in symptomatic diseases, the concomitant symptoms are accidental, and common to other distempers, and not always necessarily present, and differ according to the different constitution, age, sex, and manner of living of the persons affected. But diseases now are divided into *idiopathic*, and so all such are considered which are primary, and do not depend on any other; and *symptomatic*, where they are only secondary, and are caused by some other complaint inherent in the system. *W.*

Sect. 6. diſeaſe went off. Whereas when either of theſe *intercurrents* is the *eſſential* diſeaſe, it attacks in the ſame manner in all years indifferently, having nothing at all in common with the then prevailing *ſtationary fever*. Beſides, all the ſymptoms that afterwards ariſe are more apparent, as not being concealed and perplexed by a mixture of other phenomena of a different nature, and belonging to another fever. Again, the time of the year, wherein the greater part of *eſſential intercurrents* uſually make their appearance, frequently points out the kind of diſorders whereto they ſhould be referred. But, laſtly, he is beſt qualified to diſcover the diagnoſtic ſigns, both of theſe, and all other diſeaſes, who, by daily and diligent obſervation, hath ſearched ſo intimately into their nature and ſymptoms, as at firſt ſight to be able to diſtinguiſh the *genus*; though perhaps the characteriſtic differences of ſome of them may be ſo very ſubtile, that he cannot expreſs them by words to another.

These different ſpecies of fevers, how to be treated.

7. But as theſe different ſpecies of fevers, ſo far as I can learn by carefully conſidering their concomitants, and the method of cure, proceed from an inflammation of the blood, peculiar to every diſeaſe, I place the principal parts of the cure in cooling the blood. In the mean time I always endeavour to expel the morbific matter, by a method of cure, varied according to the nature of the diſeaſe, and which experience ſhows to be readily curative of the particular ſpecies thereof. In reality, whoever certainly knows how to expel the febrile matter, either by bleeding, ſweating, purging, or any other more

more proper way, muſt have the beſt ſucceſs in the cure of all fevers. Chap. 2.

CHAP. II.

Of the Scarlet Fever.

1. *THOUGH the ſcarlet fever may happen* * at any time, yet it generally comes at the cloſe of ſummer, when it ſeizes whole families, but eſpecially children. (1.) A chilneſs and ſhivering come at the beginning, as in other Riſe and ſymptoms of the *ſcarlet fever.*

* *Though the ſcarlet fever may happen, &c.* Notwithſtanding many diſpute the exiſtence of this fever, as deſcribed here by our author, yet SAUVAGES has inſerted it from him as a ſpecies of the ſcarlatina; and Dr. CULLEN, relying on the faith of SYDENHAM and others, has alſo claſſed it under his order of Exanthemata or eruptive fevers; though he declares, during the courſe of forty years practice, he has not ſeen a ſcarlet fever epidemic in Scotland; he has obſerved in every caſe the diſeaſe to be of that ſpecies which SAUVAGES calls the *ſcarlatina anginoſa*, his ſixth ſpecies. I can from experience ſpeak, that I have ſeveral times ſeen this fever, though always in children, without any anginoſe ſymptoms, anſwering very exactly to the deſcription given by SYDENHAM; though ſometimes coming on with ſymptoms more rapid and violent than he has deſcribed, yet conſtantly yielding to a vomit, and the uſe of the ſaline mixture perfectly neutralized, in which was diſſolved a ſmall portion of emetic tartar.

Dr. CULLEN in his Synopſis defines it, a contagious ſynocha, the face ſwelling a little on the fourth day of the diſeaſe, attended at the ſame time with a florid redneſs throughout the ſkin, with broad ſpots, at laſt running together, and in three days after converted into branny ſcales; an anaſarca often ſupervening: and this he divides into two ſpecies;

1. *Scarlatina ſimplex*, without any anginoſe affections.
2. *Scarlatina cynanchica*, with ulcerations in the throat.

W.

fevers,

Sect. 6. fevers, but without great ſickneſs; (2.) afterwards the whole ſkin is covered with ſmall red ſpots; which are more numerous, larger, and redder, but not ſo uniform as thoſe which conſtitute the meaſles; (3.) they continue two or three days, and after they are vaniſhed, and the ſkin is ſcaled off, there remains a kind of branny ſcales, diſperſed over the body, which fall off and come again for twice or thrice ſucceſſively.

The method of curing it.

2. As this diſeaſe ſeems to me to be nothing more than a moderate efferveſcence of the blood, occaſioned by the heat of the preceding ſummer, or ſome other way, I do nothing that may prevent the deſpumation of the blood, and the expulſion of the peccant matter through the pores, which is quickly enough performed. Accordingly, I refrain from bleeding, and the uſe of glyſters, which make a revulſion, whereby I conceive the noxious particles are more intimately mixed with the blood, and the motion, which is more agreeable to nature, is checked. On the other hand I forbear cardiacs, by the heat of which the blood may perhaps be put into a more violent motion, than ſo gentle and mild a ſeparation as effects the cure require; and beſides by this means a high fever may be occaſioned. I judge it ſufficient for the patient to refrain wholly from fleſh, and all kinds of ſpirituous liquors, and to keep his room, without lying always in bed. When the ſkin is entirely peeled off, and the ſymptoms vaniſhed, it is proper to give a gentle purge, ſuited to the age and ſtrength of the patient. By this plain and manifeſtly natural method, this diſeaſe in *name* only, for it is little more, is eaſily cured without

out trouble or danger; whereas on the contrary, if we add to the patient's evils, either by confining him continually in bed, or exhibiting abundance of cardiacs, and other superfluous remedies, the disease is immediately increased, and he frequently falls a victim to the over-officiousness of the physician. Chap. 3.

3. But it should here be observed, that when epileptic *convulsions*, or a COMA, arise in this disease at the beginning of the eruptions, which sometimes happened to children and young persons, it is highly proper to apply a large and strong blister to the neck, and immediately exhibit a paregoric of *syrup of white poppies*, which is to be repeated every evening during the illness; and he must be directed to make use of milk, boiled with thrice its quantity of water, for his ordinary drink, and to refrain from flesh. What to be done, if *convulsions* or a COMA attend the beginning of the eruption.

CHAP. III.

Of the Pleurisy. *

1. THIS disease, which is one of the most frequent, happens at any time, but chiefly between spring and summer; for the blood, When a *pleurisy* arises, and whom it chiefly affects.

* *Of the pleurisy.* It has been the custom of almost all authors, when treating of inflammations of the internal parts of the chest, to make a distinction betwixt pleurisy and peripneumony, supposing, that in the former the membrane called pleura was only inflamed, and in the latter the lungs; but the moderns have discovered in dissections, that what the ancients took for an affection of the pleura, was an affection of the membrane investing the lungs. Indeed, if we consider

Sect. 6. blood, being then heated by the freſh approach of the ſun, is much diſpoſed to fermentations and immoderate commotions. It chiefly affects the ſanguine, and frequently alſo attacks country people, and ſuch as have been uſed to hard labour. It generally begins (1.) with a chilneſs and ſhivering, which are followed (2.) by heat, thirſt, reſtleſſneſs, and the other well-known ſymptoms of a fever; (3.) in a few hours (though ſometimes this ſymptom comes much later) the patient is ſeized with *a violent pungent pain in one ſide, near the ribs,* * which ſome-

Its ſymptoms.

conſider the extent of the pleura, we can ſcarce ſuppoſe, that the portion called pleura can be affected without the lungs ſuffering in ſome degree; and therefore it is ſeldom found but theſe two affections are united in the ſame diſeaſe. Beſides, as has been very juſtly obſerved, if theſe diſeaſes had different ſeats, yet they can ſcarce ever be diſtinguiſhed by the ſymptoms, and to diſcriminate them would be of little uſe in practice, inaſmuch as they require preciſely ſimilar modes of cure. However, Dr. Cullen has arranged them under the genus,

PNEUMONIA, which he defines, A febrile affection attended with pain in ſome part of the thorax, laborious reſpiration, and cough; and makes two diviſions:

Firſt, PNEUMONIA PERIPNEUMONICA, accompanied with a pulſe not always hard, ſometimes ſoft; an obtuſe pain of the thorax; a conſtant difficulty in reſpiration, which cannot be performed unleſs the body is in an erect poſture; a purple colour of the face, which ſwells; moſt commonly a moiſt cough, often bloody.

Second, PNEUMONIA PLEURITIS, diſtinguiſhed by a hard pulſe, a pungent pain moſt commonly of the ſide, increaſed particularly in inſpiration; a great difficulty in lying on the ſide, with a very painful cough, dry in the beginning, afterwards moiſt, and often bloody; both of which he conſiders in different lights as ſimply idiopathic, complicated, and ſymptomatic. *Synopſis Noſologiæ Methodicæ*, vol. ii. pag. 98.—*W.*

* *A violent, pungent pain in one ſide near the ribs, &c.* The pain is felt ſometimes as if it were under the ſternum,

ſometimes extends towards the ſhoulder blades, ſometimes to the ſpine, and ſometimes towards the breaſt; (4.) a frequent cough likewiſe afflicts the patient, and occaſions great pain by ſhaking and diſtending the inflamed parts, ſo that he ſometimes holds his breath to prevent the firſt efforts of coughing; (5.) the matter expectorated, at the beginning of the diſeaſe is ſmall in quantity, thin, and often ſtreaked with blood; but in the courſe thereof it is more copious, and more concocted, and likewiſe mixed and coloured with blood; (6.) in the mean time the fever keeps pace, and even grows more violent with the ſymptoms ariſing therefrom; till at laſt, in proportion to the freer expectoration of the morbific matter, both the fever and its dreadful concomitants, as the *cough*, *ſpitting of blood*, and *pain*, &c. abate by degrees. Chap. 3.

2. (7.) But the matter productive of this diſeaſe does not always undergo ſuch a concoction in the courſe thereof, as fits it for expectoration; for it frequently remains thin, *and only a ſmall quantity is expectorated*,* as in the beginning, and con-

num, ſometimes in the back between the ſhoulders, and when in the ſides, its place has been higher or lower, more forward or backward; but the place of all others moſt frequently affected is about the ſixth or ſeventh rib, near the middle of its length, or a little more forward. The pain, though it is often ſevere and pungent, is ſometimes more dull and obtuſe, with a ſenſe of weight rather than pain, and for the moſt part continues fixed in one place; but ſometimes ſhoots from the ſide to the ſcapula on one hand, and to the ſternum and clavicle on the other.—Cullen's *Practice of Phyſic*, vol. i. pag. 366.—*W.*

* *And only a ſmall quantity expectorated*, &c. It is worth obſerving here, that pleuriſies of all kinds, from the gentleſt

Sect. 6. conſequently the fever and its concomitants remit not at all till they prove mortal. (8.) In the mean time, the belly is ſometimes too coſtive, and at others too ſoluble, the ſtools being both frequent and very liquid; (9.) ſometimes when the diſeaſe proves extremely ſevere, and bleeding has been omitted, the patient cannot ſo much as cough, *but having a great difficulty of breathing*,* is almoſt ſuffocated by the violence of the inflammation, which is ſometimes ſo very conſiderable, that he cannot dilate his breaſt ſufficiently for reſpiration, without very acute pain; (10.) and ſometimes, when the inflammation has been violent, and bleeding omitted,

gentleſt to the moſt violent, are frequently met with in practice, which are not accompanied with even the ſlighteſt expectoration through all their ſtages, ſo that neither the phyſician or patient ever once have it in their thoughts; and theſe pleuriſies are not at all more dangerous than than thoſe attended with expectoration.

* *But having a great difficulty of breathing, &c.* A difficulty of breathing is always preſent, which is greater or leſs according to the violence of the diſeaſe, and moſt conſiderable in inſpiration; it is alſo greater, when the patient is in one poſture of his body rather than another; and when he lies on the ſide affected; but with regard to this, ſometimes the contrary happens: very often the patient cannot lie eaſy on either ſide, finding eaſe only when lying on his back; and ſometimes he cannot breathe eaſily, except when in ſomewhat of an erect poſture.—Cullen's *Practice of Phyſic*, vol. i. pag. 364. *W.*

This difficulty of breathing cannot be ſaid, as Dr. Hoadley ſuppoſes, to be owing to adheſions of the lungs in the beginning of the diſeaſe; for they are not formed but from its continuance; and though at the latter end, perhaps, they may impede their free action; early therefore in this complaint, the ſymptom is to be attributed to the congeſtion of the humours occaſioned there by local irritation, and by the pain being increaſed from the dilatation of this reſpiratory organ. *W.*

which

which ſhould have been uſed at the beginning, an impoſthume is ſoon occaſioned, the matter being emptied into the cavity of the breaſt, in which caſe, though the original fever either goes off entirely, or at leaſt abates, yet the danger is not over; *for an empyema and an hectic fever** ſucceed, and the patient is deſtroyed by a *conſumption*. Chap. 3.

3. Now though the *pleuriſy* proceeds from that peculiar and ſpecific inflammation of the blood, which uſually produces it when it is a primary diſeaſe, yet it ſometimes accidentally ſucceeds other fevers, of whatever kind they be, occaſioned by the ſudden tranſlation of the febrile matter to the *pleura*, or intercoſtal muſcles. This indeed happens in the very beginning of the fever, whilſt the febrile matter is yet in a ſtate of crudity, and not overcome by a due ebullition, and conſequently not fitted for a proper ſeparation by the moſt convenient outlets. But it is moſt frequently cauſed by an unſeaſonable uſe of ſuch heating medicines, as are uſually given by ſome great ladies to perſons in low circumſtances; whoſe charity, in the mean time, A *pleuriſy* ſometimes ſymptomatic.

* *For an empyema and a hectic ſucceed, &c.* This is the mode of termination ſometimes of a pleuriſy being injudiciouſly treated; but, like other inflammations, it may terminate by reſolution alſo, and mortification; but when it has a fatal concluſion, it is moſt commonly occaſioned by the effuſion of a portion of the entire maſs of blood, either by means of rupture, or of anaſtamoſis into the adjoining cellular texture; whence the matter poured out by compreſſing the veſſels, and ſtopping the circulation, cauſes a fatal ſuffocation. Which, according to Dr. CULLEN, has been proved from diſſection; for he advances, that on diſſecting almoſt every perſon that have died of this diſeaſe, it has appeared that ſuch an effuſion has happened.—*Practice of Phyſic*, vol. i. pag. 373.—*W.*

would

Sect. 6. would be much better placed in feeding the necessitous than in curing their diseases. But this, it seems, they do to raise sweat at the beginning of the disease, little dreaming of the ill consequences thence arising; for nature, being hereby disturbed, is forced to expel the yet crude humours through the first passage that offers; whence the febrile matter is sometimes hurried violently to the *meninges*, and occasions a *delirium*, and sometimes to the *pleura*, and occasions a pleurisy; especially when the age, constitution of the patient, and the season of the year, namely, that between spring and summer, jointly concur thereto: for in that season fevers are apt to turn to pleurisies.

Remarks on the blood in this distemper.

4. Now the colour of the blood that is taken away in a pleurisy, seems to shew that this disease arises from the sudden translation above mentioned, for at the second bleeding at least, the blood when cold, looks like melted tallow to a considerable thickness, but the top resembles true *pus*, and yet it is very different from that, as being very fibrous like the rest of the blood, and not fluid like *pus*; and upon separating this part from the rest, it appears like a tough fibrous skin; and perhaps it is only the sanguineous fibres, which having lost their natural red covering by precipitation, having hardened into this whitish membrane or pellicle by the coldness of the air; but let it be observed here by the way, that though the blood flows ever so fast, yet if it does not stream horizontally from the open vein, but runs perpendicularly down along the skin, it is frequently of another colour, which I confess I cannot account for, and such a bleeding is also less serviceable. I have likewise

wise observed, that if blood that is newly taken away, be stirred about with the finger, the top will appear of a red florid colour, as in any other disease, in what manner soever it flowed. But whatever be the appearance of the blood, this disease, though it has a bad name, and is in its own nature more dangerous than most others, is easily conquered by proper treatment, and indeed with as much certainty as any other distemper. Chap. 3.

5. Having thoroughly considered all the various *phenomena* of a *pleurisy*, *I conceive it to be only a fever occasioned* * by a peculiar inflammation of the blood, whereby nature throws off the peccant matter upon the *pleura*, and sometimes upon the lungs, whence a *peripneumony* arises; which, in my opinion, only differs from a pleurisy in degree, and in respect of the great violence, and larger extent of the same cause. Whence a *pleurisy*, and what it is.

* *I conceive it only to be a fever occasioned, &c.* This disease is a true inflammation of the pleura, attended with the common symptoms belonging to disorders of this class, and others which are peculiar to the part affected. But there is another disorder, which is called a *spurious* or *bastard pleurisy*, and has for its concomitants a pungent pain in the side, but not deeply seated, only affecting the intercostal muscles; a cough, and difficulty of breathing, but without oppression; disturbance of the pulse, or feverish heat. This complaint is usually occasioned by catching cold, or from a suppression of the catamenia.—Macbride's *Introduction, &c.*

Though Hoffman says it is accompanied with a fever and a hard, depressed, and quick pulse, it is cured by bleeding, abstinence, gentle diaphoretics, and local applications of the stimulating class, such as volatile liniments, warm fomentations, and cataplasms; and in obstinate cases, cupping on the part and blistering. SAUVAGES enumerates no less than twenty-one species; though Dr. CULLEN ranks it as a synonime with rheumatism. *W.*

Sect. 6.

Intentions of curing this diſeaſe.

6. *In order therefore to cure this diſeaſe,** I have the following ends in view; (1.) to check the inflammation of the blood, and (2.) to make a revulſion

* *In order therefore to cure this diſeaſe, &c.* As the remedy chiefly to be depended upon is bleeding, we ſhall ſet down the whole of what Dr. Cullen ſays on this head:

Bleeding is performed with moſt advantage in the arm of the ſide affected; the quantity drawn muſt be ſuited to the violence of the diſeaſe and to the vigour of the patient, and ought to be as large as this laſt circumſtance will allow. The remiſſion of pain and the relief of reſpiration during the flowing of the blood may limit the quantity to be then drawn; but if theſe ſymptoms of relief do not appear, the bleeding ſhould be continued till the ſymptoms of a beginning ſyncope come on. It is ſeldom that one bleeding, however large, will prove a cure of this diſeaſe; and although the pain and difficulty of breathing may be relieved by the firſt bleeding, theſe ſymptoms commonly, and after no long intervals, recur; often with as much violence as before; in this caſe the bleeding is to be repeated, even in the courſe of the ſame day, and perhaps to the ſame quantity as before.

Sometimes the ſecond bleeding may be larger than the firſt; there are perſons, who by their conſtitutions are ready to faint upon a ſmall bleeding, and in ſuch, this may prevent the drawing ſo much blood at firſt as the pneumonic inflammation might require; but as the ſame perſons are found to bear after-bleedings better than the firſt, this allows the ſecond and ſubſequent bleedings to be larger, and to ſuch a quantity as the ſymptoms of the diſeaſe may ſeem to demand. It is according to the ſtate of the ſymptoms that bleedings are to be repeated; and they will be more effectual, when practiſed in the courſe of the firſt three days than afterwards; but they are not to be omitted, although four days of the diſeaſe have already elapſed. If the phyſician ſhall not have been called in ſooner, or if the bleeding practiſed during the firſt days ſhall not have been large enough, or even although theſe bleedings ſhall have procured ſome remiſſion, yet, upon the recurrence of the urgent ſymptoms, the bleeding ſhould be repeated at any period of the diſeaſe, eſpecially within the firſt fortnight, and even afterwards, if a tendency to ſuppuration be not evident; or if, after a ſeeming ſolution, the diſeaſe ſhall have

revulsion of the inflamed particles, fixed upon the *pleura* by proper evacuation. Chap. 3.

Depen-

have again recurred. With respect to the quantity of blood which ought, or which may with safety be taken away, no general rules can be delivered, as it must be very different, according to the state of the disease and the constitution of the patient: in an adult male of tolerable strength a pound of blood, avoirdupois, is a full bleeding; any quantity above twenty ounces is a large, and below twelve a small bleeding. A quantity of from four to five pounds, in the course of two or three days, is generally as much as such patients will safely bear; but if the intervals between the bleedings, and the whole of the time during which the bleedings have been employed, have been long, the quantity taken upon the whole may be larger.

When a large quantity of blood has been already taken from the arm, and when it is doubtful if more can be drawn with safety in that manner, some blood may be still taken by cupping and scarifying. Such a measure will be more particularly proper, when the continuance or recurrence of pain, rather than the difficulty of breathing, becomes the urgent symptoms; and then the cupping and scarifying should be made as near to the pained part as can be done conveniently.—*Practice of Physic*, vol. i.

Some authors have forbid bleeding in those cases where there is a free expectoration, lest that should be checked, on which they think the salutary solution of the disease depends; though it would be extremely wrong to put a stop to, or lessen evacuation of the puriform matter thrown up from the lungs, yet under particular circumstances bleeding is even here advisable. Dr. Huxham says, bleeding is so far from being of service in pulmonic diseases, where expectoration is sufficiently easy and quick, that it often totally checks it, consequently it is no way indicated to be of use, unless there be an apparent plethora, or an acute pain, a difficulty of breathing, or a spitting of pure blood, be so urgent as to require it. Dr. Cullen asserts, an expectoration takes place sometimes very early in this disease; but if notwithstanding that, the urgent symptoms should still continue, the expectoration must not supersede the bleedings mentioned, and during the first days of the disease its solution is not to be trusted to the expectoration alone. It

Sect. 6. The method of cure specified.

Depending therefore chiefly on bleeding, as soon as I am called in, I order about ten ounces of blood to be drawn from the arm of the affected side, *and the following draught to be taken immediately after the operation.**

Take

is in a more advanced stage only, when the proper remedies have been long before employed, and when the symptoms have suffered a considerable remission, that the entire cure may be trusted to a copious and free expectoration. During the first days of the disease I have not found bleeding stops expectoration; on the contrary, I have observed bleeding promote it; and it is in a more advanced stage of the disease only, when the patient, by large evacuations and the continuance of the disease, has been already exhausted, that bleeding seems to stop expectoration: it appears to me, that even then bleeding does not stop expectoration so much by weakening the powers of expectoration, as by favouring that serous effusion which is made into the cavity of the bronchiæ, and thereby preventing it.—*Practice of Physic.—W.*

* *The following draught to be taken immediately, &c.* The antiphlogistic method should certainly be persisted in throughout in this species of pneumonic affection; small doses of antimonials, given so as to procure only nausea, joined with saline medicines, are the most efficacious. Diluent drinks, with vegetable acids, should freely be taken, always tepid; and mucilaginous and oily demulcents should be administered, as they serve to allay the acrimony of the mucus, take off irritation, and prevent the too great violence of the cough, which is particularly to be attended to. Blistering upon the part, or as near the part affected as possible, is the best local application to which we can have recourse, and it is more eligible to have fresh blisters repeated, when necessary, than to have the first made perpetual. From the account we have of the use of opium and mercury, sometimes joined with emetic tartar and camphire in inflammatory diseases, and the success attending that practice for the course of eighteen years successively, added to my own experience in the administration of some of them, I do not hesitate in recommending them in cases of pulmonic inflammation. Small doses of calomel and emetic tartar I have given repeatedly with the happiest effects, and

am

Take of the diſtilled water of red poppies, four ounces; the ſalt prunella, one dram; ſyrup of violets, one ounce; mix them together for a draught. Chap. 3. A cooling draught.

At the ſame time I preſcribe the following emulſion:

Take ſeven blanched ſweet almonds, the ſeed of melons and pumpkins, of each half an ounce; the ſeeds of white poppies, two drams; beat them together in a marble mortar; then pour on by degrees a pint and half of barley water; mix them well, and when ſtrained add two drams of roſe water, and half an ounce of white ſugar.—Let four ounces be taken every fourth hour. An emulſion.

I alſo ordered pectorals to be taken frequently, *e. gr.*

Take of the common pectoral decoction, a quart; ſyrup of violets and maidenhair, of each an ounce A pectoral apozem.

am fixed in opinion, that mercury adds to the power of the antimonial. Dr. Hamilton, in his management of inflammatory diſeaſes, firſt, orders blood to be taken away in the beginning of the diſeaſe, in quantities proportioned to the violence of the inflammatory ſymptoms, and the age and conſtitution of the patient; next, the bowels to be emptied, either by glyſter, or (more commonly) by an eccoprotic purgative; after which, a compoſition, conſiſting of from one to five grains of calomel, and from one fourth of a grain to one grain of opium, with any conſerve, in a bolus, in proportion to the ſtrength and age of the patient, he exhibits every ſix, eight, or twelve hours, as the degrees of inflammation on the threatening aſpect of the diſtemper ſeem to require; and a plentiful dilution with barley water, or any other weak tepid beverage, is at the ſame time ſtrictly enjoined. If the fever was violent, accompanied with a dry, contracted, and arid ſkin, emetic tartar, and ſometimes camphire, were added. *W.*

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and half; mix them together for an apozem, of which let half a pint be taken three times a day.

A pectoral linctus.

Take of fresh oil of sweet almonds, two ounces of maidenhair and violets, each an ounce; white sugar, half a dram; mix them together, and make a linctus, according to rules of art.—A small quantity of this is to be swallowed leisurely often in a day.

Fresh oil of sweet almonds alone, or linseed oil, is also frequently used with great advantage.

The regimen.

7. As to diet, I forbid all flesh meats and the smallest flesh broths, and advise the patient to sup barley broth, water gruel, and panada; and to drink, a ptisan made of *pearl barley, sorrel and liquorice roots, &c.* boiled in water, and sometimes small beer. And I also prescribed the following liniment:

An emollient liniment.

Take of oil of sweet almonds, two ounces; pomatum and ointment of marshmallows, of each an ounce: mix them together for a liniment, with which let the side affected be anointed morning and night, applying a cabbage leaf thereto.

I direct the above mentioned remedies to be continued the distemper throughout.

Bleeding, how to be performed.

8. On the same day (the first of my attendance) if the pain be very acute, I order as much blood to be again taken away; or else the next day, and so the third day; and if the pain and other symptoms rage severely, I bleed in this manner four days running. But if (1.) the disease be less violent and dangerous, and therefore allows me to proceed in a gentler manner; or if (2.) the patient be too weak to bear repeated bleeding

bleeding at ſuch ſhort intervals, then, after bleeding twice, I interpoſe a day or two between every bleeding afterwards. In this caſe I make the contra-indications my rule; conſidering on the one hand the violence of the diſeaſe, and comparing it with the weakneſs of the patient on the other. And though in the cure of diſeaſes I would always be ſuffered to take away more or leſs blood, as the caſe requires, yet I have ſeldom known a confirmed pleuriſy cured in grown perſons without the loſs of about forty ounces of blood. In children, however, it is generally ſufficient to bleed once or twice. Nor does a *looſeneſs*, which ſometimes happens, obſtruct the above-mentioned repeated bleeding; for in reality it may ſoon be ſtopped hereby, without exhibiting *aſtringents*. Chap. 3.

9. *I either refrain from glyſters entirely*,* or order only ſimple ones of *milk and ſugar*, and take care to have them injected at as great a diſtance between the bleedings as poſſible.

10. To prevent the patient's being over heated during the continuance of the diſtemper, I allow him to ſit up a few hours every day, as his ſtrength will permit; which indeed is of ſuch moment here, that if he be kept always in bed, neither the plentiful evacuations of blood, nor The patient to ſit up ſome hours every day.

* *I either refrain from glyſters entirely, &c.* For this caution in the exhibition of glyſters there can be no neceſſity, practice confirms their utility. Some practitioners, ſays Dr. CULLEN, have doubted if purgatives can be ſafely employed in this diſeaſe; and indeed a ſpontaneous diarrhœa occurring in the beginning has ſeldom proved uſeful; but I have found the moderate uſe of cooling laxatives generally ſafe, and have always found it uſeful to keep the belly open by frequent emollient glyſters.—*Practice of Phyſic*, vol. i.—*W.*

Sect. 6. the most cooling remedies, will sometimes at all avail in conquering the symptoms above specified.

A purge, when to be given.

11. Immediately after the last bleeding, and sometimes before, all the symptoms abate, and the patient soon recovers his former strength, when it is proper to give some gentle purgative: and he should be debarred for some days longer from gross foods, and all kinds of spirituous liquors.

Why *expectoration* is not treated of.

12. But if it be said here, that our method is defective, because we are so far from treating amply of the means of promoting expectoration in the different stages of the disease, that we scarce mentioned them; we reply, that this has not been omitted through negligence, but purposely, after mature consideration, as having always judged those to be in great danger who trusted the cure of this disease to expectoration. For not to mention the tediousness of this method, by which nature endeavours to expel the morbific matter, it is likewise unsafe; for it often happens that part of the matter being concocted, and perhaps expectorated, the remainder continues yet crude, and this successively: the most powerfully expectorating medicines having been ineffectually used. For sometimes expectoration goes on very well, and at others is quite stopt, the patient, in the mean time, being on all sides endangered, and as I have not the least power over expectoration, it is equally uncertain whether the distemper will end in his recovery or death. Whereas, on the contrary, by bleeding, the morbific matter is brought under my management, and the orifice of the opened vein may be made to supply the function

Advantages of bleeding.

function of the windpipe. Moreover, I positively affirm that this disease, which is justly reckoned amongst the most fatal when treated according to the method we have condemned, may *be cured with as much certainty and safety* * as any other disease, by the method just laid down, not to mention the short time wherein the cure is completed; nor have I ever known a person in the least injured by the loss of so large a quantity of blood, which the unskilful seem to apprehend. Chap. 3.

13. I have indeed frequently endeavoured to discover some other method that might prove equally effectual without bleeding so copiously, *viz.* either (1.) by resolving the humour, or (2.) by expelling it by expectoration; but have not hitherto found one of equal efficacy with that above delivered; whereby (notwithstanding the fatal prognostic *Hippocrates* hath left us concerning *a dry pleurisy) I recovered the patient without waiting for expectoration.**

14. But

* *May be cured with as much certainty and safety, &c.* There is little doubt, but the methods above laid down being judiciously pursued, will prove successful in common inflammatory pleurisies, where there is a strong tone of the vascular system and firm texture of the blood: but when these inflammations take place in constitutions where the crasis of the blood has been previously injured by a putrefactive acrimony; or when they are complicated with fevers occasioned by infectious miasmata, then the symptoms of extreme weakness and dejection, sickness and vomiting, petechiæ and delirium, will be found superadded to the pain in the chest, cough, oppression, and difficulty of breathing. These complicated pleurisies and peripneumonies are constantly mortal, because the extreme weakness and dejection hinder the large and repeated bleedings, which are the only things capable of removing the inflammation.—Macbride's *Introduction.—W.*

* *I recover the patient without waiting for expectoration, &c.* Dr. Barker says, this disease is sometimes cured without

Sect. 6. 14. But as the cure of this diſeaſe chiefly conſiſts in repeated bleeding, which, in country towns, is frequently performed by unſkilful operators,

The tendon ſometimes pricked by bleeding.

out the uſe of any other remedy but bleeding and diluting liquors; but it is not bleeding which performs the cure; for all that can be done poſſibly by this evacuation, is to mitigate the ſymptoms, and nature afterwards carries off the diſeaſe by a kindly reſolution or concoction of the febrile matter: there can, however, be no doubt but it is better to attempt to carry off the diſeaſe by *reſolution* than *expectoration*; though this, it is to be feared, is hardly ever accompliſhed, and the diſorder reſolved without ſome expectoration: hence, amongſt the prognoſtics, a dry cough is an unfavourable ſymptom, particularly if there is much oppreſſion and difficulty in breathing. But when reſolution does take place, it is Dr. CULLEN's opinion, that it ſeldom happens without ſome evident evacuation. Upon the firſt days of the diſeaſe an hæmorrhage of the noſe coming on, has ſometimes terminated it; and it is ſaid, that an evacuation from the hæmorrhoidal veins, a bilious evacuation by ſtool, or an evacuation of urine with a copious ſediment, have ſeverally had the ſame effect; but ſuch occurrences have been rare and unuſual. The evacuation moſt frequently attending, and ſeeming to have the greateſt effect in promoting reſolution, is an expectoration of thick, white, or yellowiſh matter, a little ſtreaked with blood, copious, and brought up without either much or violent coughing. Very frequently the reſolution of this diſeaſe is attended with, and perhaps produced by ſweat, which is warm, fluid, copious over the whole body, and attended with an abatement of the frequency of the pulſe, of the heat of the body, and of other febrile ſymptoms.—*Practice of Phyſic*, vol. i.

But beſides this mode of termination, there are others, viz. by *effuſion*, of which we have ſpoken *note* *, pag. 367, which, if it does not immediately deſtroy by ſuffocation, may be the ſource of ſuppuration; and that ſuch effuſion has taken place, is diſcoverable from the increaſe of the dyſpnœa, the patient being in an horizontal poſture, or lying more eaſily on the affected ſide.—In a VOMICA, which in its formation is attended with ſlight, cold ſhiverings, the pulſe commonly becoming ſlower and more ſoft, though ſometimes it will be more frequent, and fuller than before.

But

rators, who often prick the tendon, whereby the the limb, and conſequently life, is endangered, I judged it not amiſs to ſubjoin here the method of curing this accident, Chap. 3.

15. *In a puncture of the tendon the patient* * does not immediately feel pain, but twelve hours after How this accident is to be remedied.

But when it is actually formed, the pain formerly exiſting decreaſes greatly, though the cough and difficulty of breathing continue, or are rather augmented, the pulſe becomes more frequent, the febrile affections increaſe every evening, and a true hectic gradually ſucceeds. In an EMPYEMA, which ſucceeds the termination of the pneumonic diſeaſe by ſuppuration, often coming on after a vomica, there is a remiſſion of pain, whilſt the dyſpnœa, cough, difficulty of lying down, and hectic fever continue, and often accompanied with a ſenſation of ſome liquid fluctuating in the breaſt, and ſymptoms of a thoracic dropſy; and in a gangrene, which is much more rare than has been imagined, but when it does occur, it is uſually joined with the termination by effuſion, and the ſymptoms of one is hardly to be diſtinguiſhed from the other. *See Note*, pag. 367. *W.*

* *In a puncture of the tendon, the patient, &c.* There ſeems to be a material difference between the account of our author and the indefatigable HEISTER, who ſays, the patient feels ſo acute a pain the moment the puncture is made, that he can ſcarce refrain from crying out aloud, eſpecially if it continues, which is ſoon ſucceeded by a tumour, inflammations, ſpaſms, and a ſtiffneſs of the limb alſo; and theſe, unleſs ſeaſonably remedied, by exceeding dangerous convulſions, and at length a gangrene, and death in a very ſhort time. The reaſon of this difference appears to be from the one taking his idea from the wounding of a nerve, the other of a tendon, both which may happen at the ſame time. However Mr. Jones, who ſpeaks practically, favours the opinion of SYDENHAM, and ſays,

" *Sydenham*'s account of the ſymptoms is a very good " one, and may be depended upon: but though, as he " hints, the ſwelling near the orifice is not ſo big (or emi- " nent) as a hazel nut, unleſs an abſceſs forms there, yet " there is generally a ſwelling, or enlargement of the arm, " and below it too in the courſe of the bending muſcles " that ariſe from the internal condyle of the *os humeri*, and " near

Sect. 6. ter the operation it begins, and is not ſo much perceived in the orifice lately made as in the parts reach-

" near it, and generally ſome pain there alſo, though it " ſeldom goes far down the arm. But the chief pain and " ſwelling commonly extend from the orifice upwards, " much in the courſe that this accurate writer deſcribes. " A peculiarity of this caſe is, that (notwithſtanding the " pain and ſwelling, together with a *certain* inflammation) " a redneſs of the ſkin is hardly ever very manifeſt, eſpe- " cially in fat perſons, till an abſceſs is conſiderably ad- " vanced; which, however, ſeldom happens, and it is un- " certain where it will fall. I have opened ſome in the " armpit and near it, as well as near the orifice and above " it. As to what is quoted from the judicious and indefa- " tigable *Heiſter*, ſo far as it relates to the puncture of the " tendon from bleeding, I am obliged to diſſent from him, " and to give a different account of the matter.—It has hap- " pened, (though I never was ſo unfortunate as to occaſion " one) that I have met with ſeveral caſes, where the *biceps* " tendon and its *faſcia* have been pricked without the in- " ſtant intolerable pain, or the diſmal train of conſequences " which he aſſerts attends it. The method of treating this " accident conſiſts in curing the inflammation, which gene- " rally is an eaſy matter. When it is firſt perceived, the " orifice ſhould be dreſſed *ſuperficially* with a pledget of di- " geſtive, and the application renewed twice in twenty- " four hours, and the limb, ſo far as it is affected, ſhould " be covered with ſoft double linen rags, moiſtened with " equal parts of olive oil and vinegar; or if any one likes " it better, a ſoft poultice may be applied in its ſtead, " made of oatmeal, oil, and vinegar. Neither the mix- " ture nor the poultice need be much warmed; and if the " accident could be diſcovered directly, or the caſe for " which the patient was blooded did not forbid it, theſe " applications would be more properly uſed cold.

" After theſe dreſſings have been uſed two or three days, " the parts ſhould be well fomented, (for which purpoſe " vinegar and water ſeem to be as proper as any thing) " and the other dreſſings applied as before directed, with " this difference however, that now they ſhould be laid on " as warm as the patient can bear them without the *leaſt* " *pain*. This method may be continued till the patient is " juſt cured, which by proper management is generally " accom-

reaching up to the armpit, where at length the pain fixes, and is chiefly felt upon extending Chap. 3.

" accompliſhed in about ten days, and often in leſs. If the " forming of an abſceſs be diſcovered, regard muſt be had " to that, and the cure will take up more time. Some- " times ſlight diſorders attend the ſkin from acids lying " conſtantly on it; in which caſe the vinegar muſt be oc- " caſionally omitted, &c. I know of nothing farther ne- " ceſſary to be mentioned under the head of external ma- " nagement, unleſs that the bandage which is uſed to " keep the dreſſings on, ought by no means to be in the " leaſt degree painfully tight—that the arm be eaſily and " entirely ſupported—and laſtly, that it be conſtantly kept " bended, and never ſuffered to be extended till the patient " is well.

" As to the internal treatment, the patient ſhould be " blooded, and take cooling purges as occaſion requires. " *Nitre* given often is proper likewiſe, and a low diet quite " neceſſary."

But from the more modern practitioners we collect, that when a nerve is wounded, and variety of alarming ſymptoms comes on in proportion to the fineneſs and tenſeneſs of the part to which it is attached, and the peculiar irritability of the conſtitution; when the pain occaſioned thereby is extreme, it is ſometimes abſolutely neceſſary to divide the nerve from whence only relief can be procured. A ſharp ichor flowing from the wound, and excoriating the ſurrounding parts, diſcovers the accident.

The ſame ſymptoms nearly ſucceed the wounding a tendon, but are ſlower in their appearance; in which caſe the limb ſhould be placed in the moſt eaſy ſituation, guarding the wound well from the admiſſion of the cold air, applying the common milk and bread poultice, firſt covering the wound with lint; or inſtead of the poultice, warm oil, or equal parts of warm oil and vinegar abſorbed in linen rags: if inflammatory ſymptoms appear, warm fomentation may be uſed, before the application of the cataplaſm. This gentle method will generally be ſucceſsful, and avoid all thoſe inconveniences which were apt to ariſe from the uſe of thoſe ſtrong ſtimulants to which it was uſual on this occaſion to have recourſe; lint dipped in equal parts of the aqua lythargyri compoſita, and tinctura opii, *Pharmacopœiæ Londinenſis*, 1788, is an effectual application. *W.*

the

Sect. 6. the arm. The part affected does not swell much, the tumour not exceeding a hazel nut; but an aqueous humour, or *ichor*, continually flows from the orifice, which in reality is esteemed the principal sign of a punctured tendon. I have known it cured by the following application:

An emollient cataplasm.

Take of the roots of white lilies, four ounces; boil them till they become soft in a quart of milk; then take oatmeal and linseed flower, of each three ounces; boil them to the consistence of a cataplasm in enough of the milk, strained from the white lily roots, and having bruised the roots, mix them therewith for a cataplasm, to be applied hot every morning and night to the the part affected.

CHAP. IV.

*Of the Bastard Peripneumony.**

The rise of the *bastard* peripneumony.

1. A FEVER, attended with several peripneumonic symptoms, arises every year towards the beginning, but more frequently at the

* *The bastard peripneumony.* There is no little disagreement amongst authors with respect to this complaint; SYDENHAM seems to be amongst the first who knew this disease distinctly; SAUVAGES has arranged it amongst the species of peripneumony, under the title of *Peripneumonia Catarrhalis*, and has there copied precisely his account. Dr. CULLEN considers it as a variety of the simple idiopathic peripneumony; and thinks that the bastard differs only in degree from the true peripneumony, and states the difference from the inflammation being milder, and the afflux of humours upon the lungs more copious in the latter than the former—For since, says he, in the bastard peripneumony the symptoms of fever, dyspnœa, pain, and cough may

the cloſe of winter. It chiefly attacks ſuch as are of a groſs habit of body, and middle-aged perſons, but oftener thoſe who are more advanced Chap. 4.

may have affected patients in different degrees and modes, it is not at all to be wondered at, if the deſcriptions of this diſeaſe amongſt various authors have not been perfectly uniform; and that the diſeaſe deſcribed by different authors under this name may not have, in fact, been the ſame, ſhould have raiſed ſome doubts in the mind of the learned MORGAGNI. Yet, all the things which have been advanced on this ſubject being well conſidered and compared with many obſervations made by the patients themſelves, I do not doubt but the diſeaſe deſcribed by SYDENHAM and BOERHAAVE under the title of ſpurious peripneumony may be one and the ſame, nor do I think that the diſeaſe obſerved by VALSALVA in Franciſcus Coralius, and by MORGAGNI himſelf in the celebrated Antonius Valiſnerius could have been different from that in reality.—*Synopſis Noſologiæ Methodicæ*, vol. ii. *nota in paginâ*, 100.

Dr. MACBRIDE is, though, of a very different opinion, and places this diſeaſe amongſt aſthmatic complaints, under orthopnœa, and arranges it as an idiopathic variety. He ſays the *peripneumonia notha*, or baſtard peripneumony, is a very different diſtemper from the peripneumonia vera; for there is neither extraordinary heat, thirſt, nor pain; and whereas the true inflammatory peripneumony generally attacks the robuſt, vigorous, and active, and is the moſt frequent in cold, dry weather, during north-eaſt winds, and high ſtations of the barometer; ſo this baſtard peripneumony commonly ſeizes the old and phlegmatic, the weak and lax, the fat and unwieldy, and is moſt rife in wet and flabby ſituations, and in foggy weather, and winter ſeaſons; all which circumſtances point out, as the cauſe, an accumulation of ſerum in the cellular cavities of the lungs; whence great oppreſſion in the air veſſels, and ſome degree of obſtruction in the pulmonic and bronchial arteries, thereby hindering the free and regular circulation of the blood. He farther attempts to account for the confuſion amongſt authors with reſpect to the theory of this diſeaſe, from their not making the neceſſary diſtinction between the cellular and tubular part of the lungs, and by ſuppoſing that the offenſive matter chokes up the extremities of the pulmonary artery; ſince the ſymptoms cannot be ſatisfactorily accounted

Sect. 6.

vanced in years, and too much addicted to ſpirituous liquors, eſpecially to brandy. For as the blood of ſuch perſons hath been loaden with phlegmatic humours collected in the winter, and is put into freſh motion by the approaching ſpring, a cough is hereby immediately occaſioned, whence theſe humours hurry to the lungs; and then if the patient happens to live irregularly, and drinks more freely of ſpirituous liquors, the matter occaſioning the cough grows thick, and ſtops the paſſages of the lungs, and the fever waſtes the maſs of blood.

Its ſymptoms enumerated.

2. At the beginning of the fever, (1.) the patient grows hot and cold alternately; (2.) is giddy; and (3.) complains of an acute pain in the head when the cough is moſt troubleſome; (4.) he vomits up all liquids, ſometimes with, and at other times without coughing; (5.) the urine is turbid, and intenſely red; (6.) the blood taken away reſembles pleuritic blood; (7.) he breathes quick, and with difficulty: if he be adviſed to cough, his head achs as if it would burſt, for ſo the patient generally expreſſes himſelf; (8.) a pain of the whole breaſt accompa-

accounted for on the ſuppoſition that the morbific matter is lodged in any other place than the cellular interſtices; whereby it preſſes upon the air veſſels and the blood veſſels, hindering the firſt from being fully diſtended with air, and the laſt from tranſmitting the blood.—*Introduction to the Theory and Practice of Phyſic.*

From all which account, however, we may venture to draw this concluſion, that the diſeaſe is owing to a ſerous or pituitous defluxion on the lungs, attended with ſome ſlight inflammatory ſymptoms: this complaint is very often extremely deceitful, the moſt fatal effects being produced ſometimes under the mildeſt ſymptoms in the beginning; occaſioning ſudden diſſolution before the ſeverity of the ſymptoms indicate ſo fatal a cataſtrophe. *W.*

nies

bres the diſeaſe, and (9.) a wheezing is heard by the attendants whenever the patient coughs, the lungs not being ſufficiently dilated, ſo that the vital paſſages ſeem to be cloſed by the ſwelling; whence the circulation is ſo intercepted, that there are no ſigns of a fever, eſpecially in groſs habits; though this may likewiſe happen from the abundance of the phlegmatic matter, whereby the blood is ſo ſurcharged, that it cannot riſe to a perfect ebullition. Chap. 4.

3. *In order to the cure of this fever,** I judge it proper, (1.) to take away that blood which inflames the lungs, and endangers ſuffocation; (2.) to Intentions of cure to be anſwered.

* *In order to the cure of this fever, &c.* The chief indication of cure here is to evacuate the lungs from the ſerous or pituitous congeſtion there formed; for which purpoſe bleeding promiſes not to be efficacious, unleſs the catarrhal and pneumonic ſymptoms are immediately conſiderable, then a bleeding may be neceſſary, otherwiſe there will ſcarce be a neceſſity for this operation. And when, ſays Dr. CULLEN, an effuſion is to be feared, the repetition of blood-letting may be very hurtful: BOERHAAVE adviſes only a ſingle bleeding, but highly extols laxative clyſters, bathing, and bliſtering. Indeed our chief dependence is in vomiting and bliſtering, in order to promote the evacuation of the offending cauſe, and increaſing the action of the abſorbent ſyſtem. Full vomitting may, according to Dr. CULLEN, be frequently repeated; and nauſeating doſes ought to be conſtantly employed; gentle laxatives are here neceſſary, purging is ſeldom uſeful; the antiphlogiſtic method ſhould be perſiſted in, cold guarded againſt, and much external heat carefully avoided; and we may endeavour to bring on gentle ſweats by mild tepid liquors *only*.

The moſt proper emetic is either the *antimonium tartariſatum*, or *vinum antimonii* of the *London Pharmacopœia*, 1788; and in order to make the agitation from the puking ſtronger, little ought to be drank after it: the bliſters ſhould be laid on the back, ſides, and arms, which are alſo to be bathed. Should theſe remedies be inefficacious, and the wheezing ſhould continue laborious, with great

Sect. 6. (2.) to open and cool the lungs by pectoral medicines; and (3.) to abate the heat of the whole body by a cooling regimen. But as, on the other hand, the collection of the phlegmatic matter contained in the veins, and daily affording freſh ſupplies for the inflammation of the lungs, ſhould ſeem to indicate frequently repeated bleeding; yet, on the other hand, I learnt, from the moſt accurate obſervation, that this practice proved very prejudicial in feveriſh perſons of a groſs habit, eſpecially if they were paſt the prime of life; ſo that bleeding with frequency was equally contra-indicated. I therefore had recourſe to frequent purging in its ſtead, which is properly enough ſubſtituted, where the patient hath an averſion to copious and frequent bleeding.

The method of cure particulariſed.

4. Accordingly I proceeded in the following manner; I directed bleeding in the arm in bed, and forbid the patient to riſe till two or three hours afterwards; becauſe bleeding, which in ſome meaſure weakens the whole body, may by this means be more eaſily borne; for the patient can better bear to have ten ounces taken away in bed, than ſix or ſeven when he ſits up. The following day I give *this purging draught* * in the morning:

Take

anxiety, and intolerable oppreſſion of the præcordia, and at the ſame time a conſtant doſing, coldneſs of the extremities, and a livid colour in the face and hands, we may expect the ſcene will ſoon cloſe fatally. *W.*

* *I give this purging draught, &c.* This purging draught is a very odd and inelegant preſcription, and withal an exceeding naufeous medicine. Much neater, as well as more palatable forms are directed every day by moſt phyſicians; and no wonder, as the art of preſcribing is conſiderably improved

Take of freſh pulp of caſſia, one ounce; liquorice root, two drams; four figs; ſena, two drams and a half; troches of agaric, a dram; boil them in water ſufficient to leave four ounces of liquor when ſtrained, in which diſſolve an ounce of manna, and half an ounce of ſolutive ſyrup of roſes: mix the whole for a purging draught. Chap. 4. A purging draught.

5. The next day I uſually repeat the bleeding, and interpoſing a day, I exhibit the purging draught again, which is to be repeated every other day till the patient recovers. On the intermediate days of purging I adviſe the uſe of a *pectoral decoction, oil of ſweet almonds*, and the like remedies. In the mean time I forbid fleſh, and broth made thereof, but eſpecially all ſpirituous liquors; and inſtead of theſe I allow him a ptiſan made of *barley and liquorice boiled in water* for his common drink, or ſmall beer, if he deſires it.

6. This is the method of curing the *baſtard peripneumony*, cauſed by an abundance of phlegmatic humours collected in the blood, and, by reaſon of the coldneſs, and moiſture of the winter, thrown upon the lungs; wherein both repeated bleeding and purging are indicated, otherwiſe than in a *true peripneumony*; which I The regimen.

Improved ſince our author's time in point of ſimplicity, elegancy, and agreeableneſs, and perhaps efficacy too.—Let me add, therefore, here once for all, that though I do not chuſe to ſwell the notes with remarks and animadverſions on every one of his preſcriptions (which the ſkilful phyſician knows how to correct and adapt to his intention, and likewiſe to vary as the circumſtances require) yet there are ſeveral ſcattered up and down in his works, againſt which the ſame objections might with equal reaſon be made.

Sect. 6. eſteem to be manifeſtly of the ſame kind with the *pleuriſy*, with this difference only, that a peripneumony does more univerſally affect the lungs. And indeed both diſtempers are cured by the ſame method, namely, by bleeding chiefly, and cooling medicines.

Wherein the diſorder differs from a *dry aſthma.*

7. Though the *baſtard peripneumony* in ſome meaſure reſembles the *dry aſthma*, both in the difficulty of breathing, and ſome other ſymptoms, yet it is ſufficiently diſtinguiſhed from it, as being attended with manifeſt ſigns of a fever and inflammation, which never appear in a *dry aſthma*; but they are much leſs conſiderable and apparent in the *baſtard peripneumony* than in the *true peripneumony.*

8. It muſt be carefully remarked, that when this diſeaſe attacks ſuch as have been great drinkers of brandy and other like ſpirituous liquors, it is by no means ſafe to quit them of a ſudden, but they muſt be left off gradually; for ſo ſudden a change makes way for a dropſy: and this ſhould be made a ſtanding rule in all other diſeaſes ariſing from the ſame cauſe. Since I have mentioned brandy, I will obſerve by the way, that it were indeed to be wiſhed, either that it was wholly forbid, or at leaſt uſed only to recruit the ſpirits, and not to occaſion a ſtupefaction; or that it was totally prohibited to uſe it internally, and only allowed to be applied externally by ſurgeons in fomentations, to digeſt ulcers, or *to heal burns.** For, in the laſt caſe,

* *To heal burns, &c.* This application can only be conſidered thus uſeful in the ſlighter affections from this cauſe; many things therefore will be equally beneficial, which will prevent the effects, or take off the force of irritation. Cold

caſe, it excels all other applications hitherto known, as it preſerves the *cutis* from putrefaction, and on this account ſpeedily finiſhes the cure, without waiting for *digeſtion*, which runs through its ſtages very ſlowly. For this purpoſe let a piece of linen, dipt in *brandy*, or *ſpirit of wine*, be immediately applied to the parts ſcalded with hot water, burnt with gun powder, or the like, and renew the application between whiles, till the pain ceaſes, and afterwards apply it only twice a day. Chap. 5.

Spirits of wine excellent in burns.

CHAP. V.

*Of the Rheumatiſm.**

1. THIS diſeaſe happens at any time, but eſpecially in *autumn*, and chiefly affects ſuch as are in the prime of life. It is generally occaſioned by expoſing the body to the cold air, immedi- The rheumatiſm how cauſed, and when it ariſes.

Cold water, rectified ſpirits, abſorbed in linen, and repeatedly applied till the pain abates; after which camphorated ſpirits of wine may ſupply their place; but if membranous or tendinous parts be affected, oil ſhould be mixed with ſpirits, to prevent the parts from being criſped or contracted.

The white of eggs beat thin; a handful of common ſalt diſſolved in a quart of vinegar; oil of turpentine; volatile ſpirits; a ſolution of the aqua lythargyri acetati, in water and ſpirits, may be alſo had recourſe to for the above purpoſes. Oil of olives, or linſeed oil applied warm is recommended; or holding the part to the fire as long as the patient can bear it. *W.*

* *The rheumatiſm, &c.* What our author ſpeaks of in the former part of this chapter is the acute rheumatiſm, and conſidered by moſt of the noſologiſts to belong to the claſs

Sect. 6. immediately after having heated it by violent exerciſe, or ſome other way. It begins (1.) with a chilneſs and ſhivering, which are ſoon ſucceeded (2.) by heat, reſtleſſneſs, thirſt, and

Its ſymptoms.

of inflammatory diſeaſes. Dr. CULLEN arranges it under his order of phlegmatiæ, and defines it briefly, A diſeaſe ariſing from an external, and moſt commonly from an evident cauſe; attended with febrile affections; pain about the joints following the courſe of the muſcles, attacking the knees and the larger joints, rather than thoſe of the hands and feet, and increaſed by external heat.

There is not a perfect agreement amongſt authors with regard to the proximate cauſe; Dr. MACBRIDE, and others ſuppoſe it to ariſe from a peculiar acrimony, nearly allied to the gout, if we judge from the appearances, but yet as diſtinct from it, as that which gives riſe to the meaſles, is from that which occaſions the ſmall pox: in the rheumatiſm the morbific matter fixes on the muſcles together with their common membrane, and the tendons; whereas the arthritic acrimony is directed to the ligaments which connect the joints.

It has alſo by many been conjectured to ariſe from a lentor of the fluids obſtructing the veſſels of the part affected.

Dr. CULLEN is of opinion that the moſt common remote cauſe is uſually the ſame with that of other inflammations not depending upon a direct ſtimulus; and ſays in proof, "That the common remote cauſe of this diſeaſe is cold "applied, which operates eſpecially on the veſſels of the "joints, from theſe being leſs covered with cellular tex- "ture than thoſe of the intermediate parts or the limbs. "And ſuppoſes farther, that the application of cold pro- "duces a conſtriction of the extreme veſſels on the ſur- "face, and at the ſame time an increaſe of tone, or phlo- "giſtic diatheſis in the courſe of them, from which ariſes "an increaſed impetus of the blood, and at the ſame "time, a reſiſtance to the free paſſage of it, and conſe- "quently inflammation and pain; likewiſe that the reſiſ- "tance formed excites the vis medicatrix to a farther in- "creaſe of the impetus of the blood; and to ſupport this, "a cold ſtage ariſes, a ſpaſm is formed, and a pyrexia, "and phlogiſtic diatheſis are produced in the whole ſyſ- "tem."—*Practice of Phyſic*, vol. ii.—*W.*

the

the other concomitants of a fever; (3.) in a day or two, and ſometimes ſooner, there ariſes an acute pain in ſome or other of the limbs, eſpecially in the wriſts, ſhoulders, and knees; which, ſhifting between whiles, affects theſe parts alternately, leaving a redneſs and ſwelling in the part laſt affected. (4.) In the beginning of the illneſs, the fever and the above-mentioned ſymptoms do ſometimes come together; but the fever goes off gradually, whilſt the pain continues and ſometimes increaſes, occaſioned by the derivation of the febrile matter to the limbs; which the frequent return of the fever, from the repulſion of the morbific matter by external remedies, ſufficiently ſhews. Chap. 5.

2. This diſeaſe, when unattended with a fever, is frequently *taken for the gout*; *though it differs eſſentially** therefrom, as will eaſily appear to Often taken for the gout.

* *Taken for the gout; though it differs eſſentially, &c.* In the *rheumatiſm* the muſcles, together with their common membrane, and the tendons where they are inſerted into the bones, are affected with a violent pain and ſpaſms in the limbs and other parts of the body; but in the *gout* the tendinous nervous ligaments, whereby the bones are joined together, inaſmuch as they unite with the *periofteum*, are more vehemently affected. But as in a beginning gout the pain is ſeated more in the ſurface of the ligaments; ſo in an obſtinate one, the vitiated humour, which occaſions the pain, is more deeply ſeated in the joints. There is alſo this difference between the gout and rheumatiſm; the gout returns with greater frequency, gives more pain, laſts longer, and is harder to be cured; but the rheumatiſm ſometimes ſeizes a perſon only once or twice during his life, and does not laſt ſo long, and is more eaſily cured. The pain likewiſe often differs in the two diſeaſes; for in the rheumatiſm it is more tenſive, heavy, joined with cold, without any remarkable tumour and redneſs; but in the gout it is tearing, pungent, and as it were threatens the burſting

Sect. 6. to thoſe that are thoroughly acquainted with both diſeaſes; and hence it is perhaps that phyſical authors have not mentioned it, unleſs indeed we eſteem it a new diſeaſe. But however this be, it is at preſent very frequent, and though when the fever is gone off, it ſeldom proves fatal, yet the violence of the pain, and its long continuance, render it no contemptible diſeaſe. For, in caſe of wrong management, it frequently remains not only ſeveral months, but ſome years, nay even during life; though in this caſe it is not equally painful, but has its periodical returns, like the gout: and the pain may poſſibly go off ſpontaneouſly, after it has been of very long ſtanding. But in the mean time the patient is deprived of the motion of his limbs during life, the joint of the fingers being contracted inwards, with ſtony concretions as in the gout, which appear more in the internal parts of the fingers than the external, whilſt the appetite may be very good, and the general health not amiſs.

A ſtubborn, but not a dangerous diſeaſe.

3. There is another ſpecies of this diſeaſe, though it is not generally eſteemed of this kind, which may properly be called a *rheumatic lumbago*. It is a violent fixt pain of the loins, reaching ſometimes to the *os ſacrum*, and reſembling a nephritic paroxyſm; only the pa-

Another ſpecies of this diſeaſe.

burſting of the part affected, which appears to be much ſwelled and red.—Hoffman. tom. ii. pag. 317.

Add to this, the gout always ariſes from an internal cauſe, is moſt commonly preceded by a flatulence, indigeſtion, and affections of the ſtomach; affects the ſmall joints more than the large; the parts affected being more acutely painful to the touch than in the rheumatiſm, and the retroceſſion to the internal parts more common, creating there affections more excruciating and dangerous. *W.*

tient

tient does not vomit. For, beſides the intolerable pain near the kidneys, the whole conduit of the ureters, even to the bladder, is ſometimes affected with the ſame, though in a leſs degree. *And I have formerly been led into an error hereby*,* as imagining it to ariſe from ſome gravel lodged in thoſe parts; whereas in reality, it proceeds from the peccant and inflamed matter of the rheumatiſm, which affects only thoſe parts, leaving the reſt of the body free. Unleſs this acute pain be removed in the ſame manner as the former ſpecies, it continues as long, and proves equally violent; ſo that the patient cannot lie in bed, but is forced either to leave it, or ſit upright therein, and be perpetually bending his body backwards and forwards. Chap. 5.

4. Since both the kinds of this diſeaſe ſeem to ariſe from inflammation, as appears from their concomitants juſt mentioned, and eſpecially by the colour of the blood taken away, which exactly reſembles that of perſons in a pleuriſy, which is univerſally allowed to be an inflammatory diſeaſe; ſo I judge that *the cure ought to be attempted only by bleeding*,† the heat of the blood being Both the kinds cauſed by inflammation.

* *I have formerly been led into an error hereby, as, &c.* This error may be generally avoided, I ſhould have ſaid always, if I had not paid great regard to the obſervations of our author, by attending to the particular circumſtances of motion in patients thus affected; for in the lumbago, when the muſcles of the back are put into motion, particularly in ſtooping, riſing, or twiſting the body with any degree of quickneſs, the pain is greatly increaſed, ſo much as to check the effort in performing ſuch action, which in nephritic complaints is very ſeldom, if ever, the caſe. *W.*

† *The cure ought only to be attempted by bleeding, &c.* Bleeding is certainly the remedy to be depended upon in the

Sect. 6. being in the mean time abated by cooling and thickening medicines, along with a proper regimen.

How to be treated.

5. Accordingly as ſoon as I am called, I order ten ounces of blood to be immediately taken away from the arm of the ſide affected, and preſcribe a *cooling and incraſſating julap*,* nearly after the following manner:

A cooling julap.

Take of the diſtilled waters of lettice, purſlain, and water lily, each four ounces; ſyrup of lemons, an ounce and half; ſyrup of violets, an ounce: mix them together for a julap, of which

the acute rheumatiſm, and that at firſt exhibited freely, with regard to repetition and quantity; ſtrict attention being paid to the conſtitution of the patient. If the habit ſhould be plethoric; the pulſe frequent, full, and hard; and the pain violent, the quantity drawn may be copious, and the operation may be frequently repeated according to the urgency of the ſymptoms; if not, caution is requiſite, for if we exceed the proper limits, and carry this beyond what the ſtrength of the patient will eaſily bear, we ſhall retard the recovery, and run the riſque of bringing on a rheumatiſm of long duration, by too much debilitating the ſyſtem. If any ſevere ſwelling or inflammatory appearance attack the joints, and this yields not to general depletion; local bleeding will be uſeful; cupping, or applying leeches to the parts, and theſe will often procure relief. *W.*

* *A cooling and incraſſating julap, &c.* In people of athletic habits, we ſhould begin with nitre, which is in theſe caſes an excellent remedy; two drams diſſolved in a quart of water gruel, and ſweetened, of which a tea-cup full may be taken every two hours, will better ſupply the place, and be more effectual; but if the ſtomach rejects this, the ſaline mixture may be given, or one made with the ammonia acetata. *P. L.* 1788. It would alſo add to their efficacy if ſmall portions of antimonium tartariſatum were added to each doſe.

To the attempt of curing this diſeaſe by theſe means many have preferred ſweating, after ſome general bleedings, which ſhould be conducted by the gentleſt means, not forced by any heating or powerful cordials; for the means ſee *note*, pag. 128. *W.*

let

let the patient drink at pleaſure; or of the emulſion above ſet down in the cure of the pleuriſy. Chap. 5.

*To eaſe the pain, I order a cataplaſm,** prepared of the *crumb of white bread, and milk, tinged with ſaffron,* or a cabbage leaf to be applied to the part affected, and frequently renewed. *With reſpect to diet,*† I enjoin a total abſtinence from fleſh, and even the thinneſt fleſh broths; ſubſtituting in their place, *barley broth, water gruel, panada,* and the like. I allow only ſmall beer for drink, or, which is more proper, a ptiſan prepared of *pearl barley, liquorice, ſorrel roots,* &c. boiled in a ſufficient quantity of water: and I adviſe the patient to ſit up ſome hours every day, becauſe the heat which proceeds from lying always in bed, promotes and increaſes the diſeaſe. The regimen.

6. The next day I repeat the bleeding in the ſame quantity, and in a day or two after, as Bleeding, how often to be uſed.

* *To eaſe the pain I order a cataplaſm, &c.* Gentle ſtimulants joined with camphire, and bliſters, are recommended to be applied to the pained parts; theſe will give relief, with reſpect to the topical affection; but after proper depletion, fomentations made of white poppy heads in which crude ſal ammoniac is diſſolved, and afterwards rubbing the parts with volatile liniment and tincture of opium, are of infinite benefit. But ſhould the joint be defective in freedom of motion, from any ſtiffneſs or numbneſs remaining from the long continuance of pain, local vapour bath, warm bathing, and gentle exerciſe, with ſome emollient embrocations, will remedy the inconvenience. *W.*

* *With reſpect to diet, &c.* The thin vegetable, or milk diet ſhould be perſiſted in through the whole courſe of the violence of febrile affection, ſuch as roaſted apples, gruel with currants, milk, milk whey; but when the fever begins to abate, weak wine, whey, or that made of muſtard ſeed may be allowed. *W.*

the

Sect. 6. the ſtrength will allow, I bleed again; then interpoſing three or four days, as the ſtrength, age, conſtitution of the patient, and other circumſtances indicate, I bleed a fourth time, which is generally the laſt, unleſs too hot a regimen has preceded, or heating remedies have been exhibited without neceſſity. *But the uſe of opiates* * requires more copious bleeding; and therefore, though the pain be ever ſo violent during the whole courſe of the diſeaſe, yet when I intend to effect the cure ſolely by bleeding, I judge it highly neceſſary to refrain from opiates, becauſe the diſeaſe is fixed thereby, and does not yield ſo readily to bleeding; ſo that where ſuch medicines are given too frequently, bleeding muſt in conſequence be oftener repeated than is otherwiſe neceſſary. Beſides, in the height of the diſeaſe, they do not anſwer the expectations we have conceived of them.

Inconveniences attending the uſe of opiates.

7. *Whilſt the above-mentioned remedies* and regimen are carefully continued, *I inject glyſters made of* † *milk* and *ſugar*, between times, on the interme-

* *But the uſe of opiates, &c.* As the violence of the pain is apt to increaſe towards the evening, ſome have been tempted to give opiates; which practice has by others been reprobated, as tending only to aggravate and prolong the diſeaſe. Dr. CULLEN ſays, they always prove hurtful in every ſtage of the diſeaſe, except when they are directed to promote ſweat; joined, therefore, with calomel, tartar emetic, and camphor, according to Dr. Hamilton's method, the objection may be removed; from being coupled with tartar emetic and calomel I have ſeen great benefit derived, *W.*

* *Whilſt the above-mentioned remedies, &c.* Purging with the neutral ſalts has been conſidered uſeful, inaſmuch as they tend to take off the phlogiſtic diatheſis; which may occaſionally be repeated during the diſeaſe, at leaſt they ſhould

intermediate days of bleeding; earneſtly recommending the exact obſervance of theſe directions, for at leaſt eight days after the laſt bleeding; and then I preſcribe a gentle purging potion to be taken in the morning, and in the evening a large doſe of *ſyrup of white poppies* in *cowſlip-flower water*; whereby a check is put to the tumultuary motion of the blood, which might otherwiſe endanger a relapſe. This being done, I allow the patient to return by degrees to his cuſtomary way of living, in relation to diet, exerciſe, and air; but at the ſame time caution him to refrain, for a conſiderable time, from wine and all ſpirituous liquors, ſalt or high-ſeaſoned fleſh, and in general from all food of difficult digeſtion. Chap. 5. Purging, when proper.

8. After having repeated bleeding, as above ſpecified, the pain is greatly abated, though it does not go quite off; but as ſoon as the ſtrength returns, which bleeding had greatly impaired, the ſymptoms will vaniſh, and the patient recover perfectly, eſpecially upon the approach of the following ſeaſon of the year, which will be more conducive to recruit the ſtrength, than that wherein he was firſt attacked with the diſeaſe.

9. But though this or a ſimilar method, ſeaſonably uſed in the beginning of the diſeaſe, does generally prove ſucceſsful; yet it frequently happens, when the patient hath been unſkilfully treated by a contrary procedure, he is Miſchiefs of a contrary method.

ſhould be given in ſuch quantities as prove gently laxative; for they tend to cool the habit, prevent any inteſtinal congeſtion, and abate febrile affections. Depending, therefore, upon glyſters, and waiting eight days before a purgative is exhibited, is uſeleſs and unneceſſary. *W.*

ſeverely

Sect. 6. severely afflicted during life with flying pains, which are sometimes violent, and at others more gentle; whereby the unskilful are easily deceived, and they are commonly reckoned symptoms of the scurvy. And here by the way, to speak my sentiments freely, I shall add, that though I do not at all doubt that the *scurvy* is to be met with in these northern countries, yet I am persuaded it is not so frequent as is generally supposed to be; for most of those disorders we term *scorbutic*, are the effect of approaching ills, not yet formed into diseases, and not having hitherto assumed a certain form of appearance; or they are the remains of some disease imperfectly cured, whereby the blood and juices are vitiated. Thus, for instance, in those bodies wherein a matter suited to produce the gout is newly generated, but not yet thrown upon the joints, there appear various symptoms, which occasion us to suspect the *scurvy*, till the formation and actual appearance of the *gout* remove all doubt concerning the distemper.

The *scurvy* less common than it is supposed to be.

10. Neither are we ignorant that as many symptoms, resembling the scurvy, afflict gouty persons after the fit of the gout is over; namely, when an unseasonable use of evacuations, or the advanced age of the patient, or some other cause hath obstructed nature, so as to have rendered her unable to throw off all the gouty matter upon the joints; which being retained, and yet of no use, vitiates the mass of blood, and occasions many dangerous symptoms. And this is to be understood not only of the gout, but also of a beginning *dropsy*. Though it is proverbially said, *that where the scurvy ends the dropsy begins*; yet this maxim is only to be understood

derſtood in this ſenſe, that as ſoon as the *dropſy* Chap. 5.
ſhews itſelf by manifeſt ſigns, the pre-conceived opinion of the *ſcurvy* falls to the ground. And the ſame may be maintained of ſeveral other chronic diſeaſes, which are either yet growing in the body, and accordingly have not aſſumed any certain form of appearance; or of thoſe which are partly conquered, but not totally cured. And in reality, unleſs this be granted, the name of the *ſcurvy* (as it does at this day) will obtain univerſally, and comprize moſt diſeaſes. Whereas if we make an accurate ſearch into the ſecret cauſes of every diſeaſe, and ſtrip it of the diſguiſe of theſe irregular ſymptoms which ſerve to conceal it, we ſhall ſoon diſcover its ſpecies, and eaſily reduce it to its proper claſs. Moreover, the method whereby theſe diſeaſes are to be cured, muſt not be ſuited to thoſe irregular ſymptoms, but to the individual diſeaſe, of whatever kind it be, as if it were perfectly formed, and actually exiſted.

11. But it is here to be obſerved, *that when* Frequent bleeding improper in an inveterate *rheumatiſm.*
the rheumatiſm hath taken deep root * by a continuance of ſome years, it is improper to repeat bleeding

* *When the rheumatiſm has taken deep root, &c.* Dr. Swan ſays, in an obſtinate rheumatiſm, accompanied with an impoveriſhed ſtate of blood, there is not a better remedy than the Peruvian bark, given between the fever and rheumatic fits, which frequently attack the patient towards evening: it has often cured when nothing elſe would.

Indeed where the pains are obſerved to intermit, and where at the onſet of the diſeaſe ſweatings have been profuſe, the urine depoſited a ſediment, and the habit appears debilitated, Peruvian bark is a noble remedy: though Dr. CULLEN aſſerts, "he has ſeldom found it uſeful, and in ſome caſes hurtful; yet that, I preſume, has been owing to improper application; for he confeſſes it appears to him

to

Sect. 6. bleeding at ſuch ſhort intervals, as in the beginning of the diſeaſe; and better to interpoſe ſome weeks between every bleeding. By this means the morbific matter will either be quite expelled, or at leaſt in ſo great a degree, that the remains of it may be carried off entirely by an iſſue made in one of the legs, and exhibiting a proper quantity of ſome volatile ſpirit every morning and evening in canary.

A ſcorbutic rheumatiſm.

12. But though there is a remarkable difference between the true *rheumatiſm* and the *ſcurvy*, as intimated above, it muſt, nevertheleſs, be owned that there is another ſpecies of the *rheumatiſm*, which is near akin to the *ſcurvy*; for it reſembles it in its capital ſymptoms, and requires nearly the ſame method of cure; and therefore I call it a *ſcorbutic rheumatiſm*.* The pain ſometimes affects one, and ſometimes another part, but it does rarely occaſion a ſwelling,

to be fit, in thoſe caſes in which the phlogiſtic diatheſis is much abated, and where, at the ſame time, the exacerbations of the diſeaſe are manifeſtly periodical, with conſiderable remiſſions interpoſed." But if the motory powers appear weak, and there ſhould be any coldneſs, with a languid circulation, the volatile tincture of guaiacum will be found highly uſeful. *W.*

* *A ſcorbutic rheumatiſm, &c.* *Hoffman* alſo obſerves that there is a *ſcorbuic rheumatiſm*, in which the whole maſs of the lymph and ſerum is vitiated with foul, excrementitious, ſulphureous, ſaline, ſharp particles, which occaſionally manifeſt themſelves by different kinds of eruptions; it proceeds from unwholeſome, hard, ſalt diet, an idle and ſedentary life, the common uſe of a heavy, vapid air, and long continued grief; and hence the inhabitants of ſea ports are generally moſt ſubject to it.

Diluent and demulcent remedies taken freely, and continued a long time, are chiefly proper here: mineral waters drank with milk, along with a convenient regimen, are likewiſe of great efficacy in curing this ſpecies of the diſeaſe.

as

as in the other ſpecies, neither is it attended with a fever. It is alſo a leſs-fixed pain, and accompanied with irregular ſymptoms: ſometimes it affects one limb, and ſometimes another; ſometimes it only attacks the internal parts, and cauſes ſickneſs, which goes off again upon the return of the pain of the external parts. In this manner the patient is alternately afflicted, and the diſeaſe laſts a long time, like thoſe diſtempers which are eſteemed moſt chronic. It chiefly attacks the female ſex, and men of weak conſtitutions; ſo that I ſhould have concluded it ought to be referred to the tribe of hyſteric diſorders, had not repeated experience taught me that it would not yield at all to hyſteric remedies. Chap. 5.

13. Such, likewiſe, as have gone through a long courſe of the *Peruvian bark* are ſubject to this diſeaſe, which, by the way, is the only ill effect I have ever obſerved from the uſe of this medicine. But however it be, this diſeaſe, whether it proceeds from this or any other cauſe, is eaſily conquered by the uſe of the following remedies, which I ſhould have concealed had I not preferred the good of mankind to my private intereſt: for by the help of theſe alone, I have cured ſeveral who were afflicted in the manner I have deſcribed, when repeated *bleeding*, *cathartics*, a *milk diet*, the *teſtaceous powders*, &c. availed not at all.

Take of the conſerve of garden ſcurvy graſs, two ounces; conſerve of wood ſorrel, an ounce; compound powder of wake robin, ſix drams; ſyrup of oranges, enough to make the whole into an electuary; two drams of which is to The ſcorbutic electuary.

Sect. 6.

be taken three times a day, for a month, drinking after it three ounces of the following diſtilled water:

The ſcorbutic water.

Take of garden ſcurvy graſs, eight handfuls; of water creſſes, brook lime, ſage, and mint, each four handfuls; the peels of ſix oranges; nutmegs bruiſed, half an ounce: infuſe them in ſix quarts of mum, and draw off only three quarts for uſe in a common ſtill.

The doſe of the compound powder of wake robin muſt by no means be diminiſhed.

CHAP. VI.

*Of the eryſipelatous Fever.**

When the *eryſipelatous fever* ariſes, and whom it chiefly affects.

1. THIS diſeaſe affects every part of the body, but eſpecially the face, and it happens at all times of the year, but chiefly at the cloſe of ſummer, at which time it frequently

* *Eryſipelatous Fever, &c.* This fever is arranged by Dr. CULLEN under the third order of febrile diſeaſes, EXANTHEMATA, called ERYSIPELAS, which is defined,

An inflammatory fever of two or three days continuance, attended commonly with drowſineſs, often with delirium; having in ſome part of the ſkin, but more frequently in the face, an erythematous inflammation. It is divided into two ſpecies; the firſt named,

ERYSIPELAS VESICULOSUM; attended with an erythema,* a ſpreading redneſs, occupying a large ſpace, and running in ſome places into large bliſters.

* A ſuperficial tumour, ſolitary, diffuſed, having a roſy-coloured redneſs, vaniſhing on preſſure, ſmooth, ſhining, unleſs made rough by eruptions, and attended with an acrid burning or itching heat, which verges not to ſuppuration, but to a ſpontaneous ſeparation of the cuticle.—Sauvages.

Second,

quently attacks the patient whilſt he is abroad. Chap. 6.
(1.) The face ſwells of a ſudden, with great pain and redneſs, and (2.) abundance of ſmall pimples appear, which, upon the increaſe of the inflammation, often riſe up into ſmall bliſters, and ſpread conſiderably over the forehead and head, the eyes in the mean time being quite cloſed by the largeneſs of the tumour. The country people call it a *blaſt*, or *blight*; and in reality it differs little from thoſe ſymptoms

Second, ERYSIPELAS PHLYCTENOIDES, accompanied with an erythema of many papulæ, occupying particularly parts of the trunk of the body, and immediately running into phlyctenæ, or ſmall veſicles. — *Synopſis Noſologiæ Methodicæ*, vol. ii.

The ERYTHEMA is alſo called by many authors ERYSIPELAS, but there ſeems to be a diſtinction neceſſary to be made here; which Dr. CULLEN has done very judiciouſly: When the diſeaſe is an affection of the ſkin alone, and very little of the whole ſyſtem, or when the general affection of the ſyſtem is only ſymptomatical of external inflammation, he calls the diſeaſe ERYTHEMAS; but when the external inflammation is an exanthema, and ſymptomatical of an affection of the whole ſyſtem, he names it then ERYSIPELAS; and this diſtinction it is very neceſſary to obſerve, for though the cuticular appearances are ſimilar in both caſes, yet *in one* it forms the diſeaſe, and is *idiopathic*, in *the other* only *ſymptomatic*. But the ERYSIPELAS VESICULOSUM is the ſpecies which is here deſcribed by our author. And this is ſaid to "ariſe from a matter generated in the body, and "which, analogous to the other caſes of exanthemata, is, "in conſequence of fever, thrown out upon the ſurface of "the body." — Cullen's *Practice of Phyſic*, vol. ii.

When the eryſipelas is preceded and attended with only the common febrile ſymptoms, it is to be termed *febris eryſipelatoſa benigna*; but when combined with unuſual, and diſtreſſing complaints, ſuch as total loſs of ſtrength, great ſickneſs, oppreſſion, and violent pains of other places than where the inflammation appears, then it may receive the term *eryſipelata maligna, ſeu peſtilens*.—Macbride's *Introduction*.—*W*.

Sect. 6. which accompany the wounds made by ſtings of bees, or waſps, excepting only that there are puſtules. *And theſe are the ſigns of the common* * and moſt remarkable ſpecies of the *eryſipelas.*

2. But whatever part is affected by this diſeaſe, and at whatever time of the year it comes, a chilneſs and ſhivering, unleſs they preceded a day or two before, as it ſometimes happens, generally attend this inflammation, with a thirſt, reſtleſſneſs, and other ſigns of a fever. As the fever in the beginning occaſioned the pain, ſwelling, and other ſymptoms (which increaſing daily ſometimes terminate in a gangrene) ſo in the courſe of the diſeaſe theſe ſymptoms greatly

* *And theſe are the ſigns of the common, &c.* To which, and the paragraph below, we may add; The hot ſtage is frequently attended with a confuſion of the head, and ſome degree of delirium, and almoſt always with drowſineſs, and perhaps a coma; the pulſe is always frequent, and commonly full and hard; the bliſters contain a thin, yellowiſh, and almoſt colourleſs liquor which ſooner or later runs out; the ſurface of the ſkin in the bliſtered places ſometimes become livid, and blackiſh; but this livor ſeldom goes deeper than the ſurface, or diſcovers any degree of gangrene affecting the ſkin; on the parts of the face not affected with bliſters the cutis ſuffers, towards the end of the diſeaſe, a conſiderable deſquamation. The inflammation uſually continues for eight or ten days, and for the ſame time the fever and ſymptoms attending it alſo continue. In the progreſs of the complaint, the delirium and coma attending ſometimes go on increaſing, and the patient dies apoplectic, on the ſeventh, ninth, or eleventh day of the diſeaſe;—but if the fatal event does not take place, the inflammation after having affected a part, commonly the whole of the face, and perhaps the other external parts of the head, ceaſes; with the inflammation the fever alſo ceaſes; and without any evident criſis the patient returns to his ordinary ſtate of health.—Cullen's *Practice of Phyſic*, vol. ii.—*W.*

conduce

conduce to the increaſe of the fever, till both are taken off by proper remedies. Chap. 6.

3. *There is another ſpecies of this diſeaſe,** though it happens leſs frequently. This attacks at any time of the year, and is moſtly owing to too free an uſe of ſubtile attenuating Another ſpecies of an *eryſipelas.*

* *There is another ſpecies of this diſeaſe, &c.* Though conſidered here by our author as a ſpecies of eryſipelas, it ſeems not to belong to this genus, as wanting the characteriſtic appearances; SAUVAGES, and after him, MACBRIDE, has arranged it under the genus FEBRIS SCARLATINA, and fixed it as a ſpecies of that diſeaſe; Dr. CULLEN gives it as a GENUS under the EXANTHEMATA; and defines it,

An amphemerine fever; having on the ſecond day ſpot-like appearances of a red colour, *(rubores maculoſi)* reſembling the ſtinging of nettles, which commonly diſappears in the day time, and return with the fever at night; and after a few days run into extremely ſmall ſcales; on which he makes the following remarks: There is a diſeaſe by the Engliſh called the nettle raſh, which by ſome is conſidered as the urticariæ; but this diſeaſe, (nettle raſh) as deſcribed by the learned Dr. HEBERDEN in the London Medical Tranſactions, and which we ourſelves have often ſeen, is totally different from the urticaria of noſologiſts, inaſmuch as it is a chronical diſeaſe unattended by fever, and may perhaps be capable of being referred to the order called IMPETIGINES; and farther declares, that the definition here given is rather conſiſtent with the opinion of others, than his own; for he ſeldom has ſeen this diſeaſe, and never obſerved it to be epidemic, or preſerving the regular courſe, as here deſcribed. — *Synopſis Noſologiæ Methodicæ*, vol. ii.

However it is a very mild diſeaſe, and ſcarce requires any medical aſſiſtance; all that will be neceſſary to be done in this caſe will be to keep the patient moderately warm, and to purſue the antiphlogiſtic method; but ſhould the fever run uncommonly high we may have recourſe to bleeding, gentle antimonials, and aperients; and ſhould the head be ſo much affected as to bring on coma or convulſions, circumſtances occurring in young children ſometimes, in this as well as the ſimple ſcarlet fever, pediluvia and bliſtering will be requiſite. *W.*

Sect. 6. wines, or ſome ſimilar ſpirituous liquor. It begins with a ſlight fever, which is immediately ſucceeded by an eruption of puſtules almoſt over the whole body, reſembling thoſe occaſioned by the ſtinging of nettles, and ſometimes they riſe up into bliſters, and ſoon after diſappear, and lie concealed under the ſkin, where they cauſe an intolerable itching, and after gentle ſcratching come out anew.

Its ſymptoms.

The *eryſipelas* how to be treated.

4. *In order to the cure I conceive,** (1.) that the peccant matter which is mixed with the blood, muſt be evacuated in a proper manner; (2.) the ebullition of the blood checked by cooling remedies; and laſtly, (3.) that the matter now ſecreted from the blood be invited out and diſcuſſed. To anſwer the ends, as ſoon as I am called, I direct a ſufficient quantity of

* *In order to the cure, I conceive, &c.* From conſidering the whole of the ſymptoms and the natural progreſs, it will appear obviouſly that the diſeaſe is in a great meaſure inflammatory, and ſhould be treated nearly, if not altogether, in a ſimilar manner with complaints of that claſs; but as here there is evidently an acrimonious humour diſcharged from the circulating fluids, and depoſited in the cuticular veſſels, from whence it ought to exude, and be eliminated from the habit, there requires great caution in the conduct of the fever; neither to render it too low by immoderate evacuations, nor by the imprudent application of repellent remedies endanger a retroceſſion, or hinder by the application of cold, or aſtringent materials, the free evacuation of the morbific matter.

Bleeding muſt be had recourſe to, and repeated according to the urgency of the ſymptoms, and ſtrength of the conſtitution; and purging, which laſt is conſidered by ſome almoſt as ſpecific in this caſe; and the patient ſhould be kept as much as poſſible in an erect poſture, conſiſtent with his eaſe: gentle diaphoretics ſhould be perſiſted alſo in intermediately; and the whole of thoſe remedies effectual in other inflammations. *W.*

blood

blood to be taken away from the arm, which generally reſembles the blood of pleuritics. The next day I give my common purging potion, and exhibit a paregoric draught at bed time, in caſe it has operated briſkly, *e. gr. ſyrup of white poppies*, in *cowſlip flower water*, or ſomething of the ſame kind. After purging, *I order the part affected to be fomented** with the following fomentation: Chap. 6.

Take

* *I order the part affected to be fomented, &c.* Reſpecting the uſe of external applications, practitioners have been divided in that point; ſome preſcribing lenient or ſoftening epithems and fomentations to the parts; and other applications, ſuch as were cooling, aſtringent, ſedative; ſpirituous embrocations, oily, and watery applications; the three firſt of which are ſaid to diſpoſe to gangrene; the fourth, to increaſe inflammation; the two laſt to occaſion its ſpreading; ſo that what is moſt commonly now employed, and eſteemed the ſafeſt, is a dry, mealy powder, ſprinkled upon the inflamed part.—Cullen's *Practice of Phyſic*, vol. ii.—Some application is, however, often neceſſary to relieve the anxiety of the patient's mind; in which caſe the unguentum ſambuci may be uſed with the greateſt ſafety; or rags dipped in the aqua lythargyri compoſita may be applied.

Dr. Swan recites a caſe of a violent and extenſive eryſipelas, which confirms the propriety of the mode of treatment above recommended from its quick and unexpected ſucceſs. A middle-aged perſon, of a hot and bilious conſtitution, and ſomewhat inclined to corpulency, having for ſome time loſt the uſe of his arm, from what cauſe I do not remember, was adviſed to apply a ſtimulating warm fomentation, and a warm nervous liniment thereto, in order to recover its motion. But ſoon after uſing theſe remedies, which availed not at all in relieving the complaint, an *eryſipelas* aroſe in the part, and from thence gained one ſhoulder, and one ſide of the face, and afterwards extended all over one ſide of the neck and trunk, both before and behind. The parts effected were ſo exceeding tender and painful, as not to abide the moſt emollient and anodyne fomentation that could be contrived, and a high fever, with

Sect. 6.

The emollient fotus.

Take of the roots of marſhmallows and lilies, each two ounces; the leaves of mallows, elder, and mullein, of each two handfuls; the flowers of melilot, the tops of St. John's *wort, and the leſſer centaury, of each one handful; linſeed and fenugreek ſeed, each half an ounce; boil them in water ſufficient to leave three pints, ſtrain off the liquor, and when it is uſed add two ounces of ſpirit of wine to every pint thereof. Let the part affected be fomented twice a day with ſoft flannels dipt in this fomentation hot, and wrung out, and, after fomenting, bathe it with the following mixture:*

The mixture.

Take of ſpirit of wine, half a pint; Venice *treacle, two ounces; long pepper and cloves, reduced to powder, of each two drams; mix them together; cover the part affected with brown paper, moiſtened with this mixture.*

The regimen.

5. Moreover, I order the patient to ſup only barley broth, water gruel, and eat roaſt apples, to drink ſmall beer, and to refrain from bed ſome hours every day. By this method the fever and other ſymptoms are generally ſoon taken off; if not, I repeat bleeding, and ſometimes it is neceſſary to bleed a third time, interpoſing a day between each bleeding, that is, if the

great thirſt and reſtleſſneſs, accompanied the diſorder; which however yielded, ſooner than was expected, to repeated bleeding, gentle purging, diluting liquors drank freely, nitrous medicines, and emollient cataplaſms, often renewed, made chiefly of *elder bark* boiled in *milk*, with the addition of a ſmall quantity of *ointment of elder*.

It was hoped that the conſiderable inflammation, which happened here, would have rouſed the natural heat of the arm, and in ſome meaſure reſtored its former motion, but nevertheleſs it remained as motionleſs as ever. *W.*

blood

blood be greatly vitiated, and the fever high. On the intermediate days of bleeding, I order a glyſter made of *milk* and *ſyrup of violets*, and a cooling julap made of the *diſtilled water of water lilies*, &c. as delivered in the cure of the *rheumatiſm*, to be taken in a proper quantity every hour. *But a ſingle bleeding, and a purge generally effect the cure*,* provided they be uſed in time. The ſame method is to be uſed in that ſpecies attended with itching and redneſs, and reſembling the ſtinging of nettles; only external applications are leſs neceſſary here. Chap. 6.

6. I ſhall obſerve here, by the way, that though not only this diſeaſe, but the greater part of ſuch as affect the ſkin, and are attended with ſome ſort of eruption, in caſe they are of the chronic kind, readily yield to this method, Some other eruptive diſorders require a different treatment.

* *But a ſingle bleeding and a purge, &c.* Though this may ſometimes ſucceed, the diſeaſe ſeldom yields ſo very quickly; and notwithſtanding this method perſiſted in judiciouſly, will generally conquer the malady, ſtill the ſwelling ſometimes ſinks, and the acrimonious humour appears to ſtrike in. If under this circumſtance oppreſſion and anxiety come on, and the pulſe grows weak, we muſt then apply bliſters, and adhere to the uſe of cordials, and volatiles: but if on the contrary, notwithſtanding the ſubſidence of the tumefaction, ſhould the pulſe and fever continue high, we muſt have recourſe to bleeding, according to the exigencies of the caſe, and a purge be given, particularly if it affects the brain; bliſtering the lower extremities, and applying ſinapiſms to the feet ſhould not be omitted. A gentleman, Dr. SWAN relates, had an eryſipelas of the face ſtruck in from the cold air, which was attended with all the ſymptoms of an inflamed brain, and from hence in moſt imminent danger, who appeared to be ſnatched from death by bleeding him in the jugular, and applying two large bliſters to both ſides of the neck, and beſides theſe, bleeding in the arm, and giving him a ſtrong purge; all which was done in the ſpace of an hour. *W.*

and

Sect. 6. and accordingly go off in a ſhort time by repeated bleeding and purging; yet there are others that require a very different treatment. For neither the evacuations juſt mentioned, how frequently ſoever repeated, nor teſtaceous powders exhibited to ſweeten the blood, at all avail when a noxious, recrementitious matter lies deep in the ſkin, and cannot be removed but by ſuch remedies as ſtrengthen the tone of the blood, and are conſequently proper to open the obſtructions of the pores: and therefore in the *violent itchings*, and inveterate eruptions of the ſkin, of that kind, I have had recourſe to the following method with ſucceſs:

The method deſcribed.

The ſudorific bolus.

Take of Venice *treacle, half a dram; electuary of the egg, a ſcruple;* Virginian *ſnake root, finely powdered, fifteen grains; oriental bezoar, five grains; ſyrup of candied citron, enough to make them into a bolus; which is to be taken every morning, and at bed time, for one and twenty days, drinking after it ſix ſpoonfuls of the following julap:*

The cordial julap.

Take of the diſtilled water of carduus benedictus, *ſix ounces; plague and treacle water, of each two ounces; ſyrup of cloves, an ounce: mix them together.*

7. The patient ſhould ſweat an hour or two every morning after taking the medicine, or rather promote a gentle breathing ſweat in bed, for the ſame ſpace of time, by covering himſelf with a greater quantity of cloaths than uſual. This courſe being over, if the eruption ſtill continue, let the parts affected be anointed with the following liniment:

Take

Take of the ointment of ſharp-pointed dock, two ounces; pomatum, an ounce; flowers of ſulphur, three drams; oil of rhodium, half a ſcruple: mix them together for a liniment. Chap. 6. The cleanſing liniment.

But the medicines above preſcribed muſt by no means be uſed before ſufficient bleeding and purging have been uſed; which, though they do not effect a cure uſed alone, are however preventive of a fever, which might otherwiſe ariſe from the uſe of ſuch hot medicines. To be preceded by bleeding and purging.

8. *There is another kind of eruption,** though leſs frequent, wherein no evacuations avail. This, An uncommon eruption and its cure deſcribed.

* *There is another kind of eruption, &c.* This appears to be the *eryſipelas phlyctænoides*, ſee pag. 403; called alſo, *zoſter*, *zona*, *the ſhingles*. SAUVAGES gives the following deſcription of this ſpecies:

It infeſts the trunk of the body, ſeizing ſometimes the thorax, at others the ſcapula, and now and then the ſides and ribs; it frequently ariſes lower, and ſurrounds the body like a girdle, in which caſe, if we believe PLINY, it is fatal; certain veſicles ariſe ſometimes of a yellowiſh, but oftener rather of a livid colour, which are wont to corrode like a tetter, which ſpecies they greatly reſemble; hence, by SCRIBONIUS LARGUS it is called HERPES; it is accompanied only by a ſlight fever, and if the veſicles ſhould be repelled violent ſymptoms ariſe. In the cure two things are to be obſerved, firſt, that we ſhould attempt to bring the ſmall ulcers to maturation; ſecondly, we ſhould avoid purging till the eruption ſhall have evacuated itſelf by the ſkin; but afterwards the patient muſt be purged with Glauber's ſalts, or ſea water.—*Noſologia Methodica*, vol. i.

HOFFMAN in treating of the eryſipelatous fever, vol. ii. ſect. 1. cap. 13. gives an account of this ſpecies, of which he ſays: Amongſt the peculiar kinds of eryſipelas, that which PLINY calls ZOSTER, we ZONA, is known at this day to few, and little taken notice of by the ancients. It manifeſts itſelf by violent ſymptoms, and ſurrounds the body like a girdle, above the navel, from the region of the præcordia round the back, commonly of the breadth of ſome fingers;

Sect. 6. This, though it sometimes appears in other parts, generally affects the breast, and fixes itself in some certain place; it rises very little, if at all, higher than the skin, and appears like a broad spot, or a kind of branny scurf, of a yellowish colour. Whilst this spot keeps out, the patient continues pretty well, but when it vanishes, as it frequently does, a slight sickness succeeds, the urine becomes more turbid, and of a deeper red, but somewhat inclining to yellow. This disorder, after using general evacuations, is to be treated in the same manner as the *stubborn itch* above mentioned; only it must be remembered that the use of wine, and flesh of easy digestion, must by all means be indulged, all coolers being rather detrimental than serviceable. In this manner is this last kind of eruption cured; but sometimes it proves so inveterate, as only to yield to a long continued course of chalybeate waters.

fingers; the acrid pustules breaking out with most intense heat, burning like fire; but it is dangerous and sometimes fatal; that, though, is the most malignant of all, which appears after great languor in old men, highly cacochymic, and sometimes also in malignant and pestilential fevers, under the nipple of the breast, and in the region of the heart, or in the hands and other more exquisitely sensible parts; it soon becomes livid, at last black, and quickly terminates in death, which PLATERUS describes in the second volume of his works, pag. 23, under the name *Maculata*. He supplies one instance of its being cured in fourteen days by the use internally of mild diaphoretics for some time, and towards the conclusion by the external application of the oil of eggs. Two instances he gives from JOANNIS LANGII, Epistolæ, pag. 110; and thinks that the affection described by TULPIUS under the name of *exedens præcordiorum herpes* to be the same with this species of erysipelas. *W.*

CHAP.

CHAP. VII.

Chap. 7.

*Of the Quinſey.**

1. THIS diſeaſe comes at any time of the year, but eſpecially between ſpring and ſummer; it chiefly attacks the young and ſanguine,

When the *quinſey* happens, and whom it chiefly attacks.

* *The quinſey.* This diſeaſe is arranged by Dr. CULLEN under the claſs of febrile diſeaſes; in the ſecond order, INFLAMMATIONS, forming the tenth genus, named CYNANCHE, and divided into five ſpecies, four of which take their particular appellations from the parts of the throat and fauces affected, and the particular appearances there obvious; one from the appearances and fever accompanying the affection.—The GENUS he defines,

A febrile affection ſometimes of the typhodal or nervous kind, attended with a pain and redneſs of the fauces, a difficulty of deglutition and reſpiration, with a ſenſe of ſtraitneſs in the fauces.

The firſt ſpecies is named,

CYNANCHE TONSILLARIS, wherein the mucous membrane of the fauces and tonſils are affected with redneſs and tumour, attended with an inflammatory fever.

The ſecond, CYNANCHE MALIGNA, wherein the mucous membrane and fauces are affected with redneſs and tumour, and alſo with mucous ſpreading ſloughs of a whitiſh or cineritious colour covering ulcers, accompanied with a typhodal or nervous fever, and cuticular eruptions.

The third, CYNANCHE TRACHEALIS, wherein reſpiration is difficult, a whizzing ſound in inſpiration, and the voice hoarſe; there is alſo a clangous cough, little or no tumour appearing in the fauces, though deglutition is ſomewhat impeded, and inflammatory fever.

The fourth, CYNANCHE PHARYNGÆA; in this there appears a redneſs particularly in the lower part of the fauces; very difficult and moſt painful deglutition, a ſufficiently eaſy reſpiration, and an inflammatory fever.

The fifth, CYNANCHE PAROTIDÆA, which is manifeſted by a large external tumour of the parotid and maxillary

Sect. 6. guine, and alſo red-haired perſons. *It begins* (1.) *with a chilneſs and ſhivering,** (2.) a fever ſucceeds, and (3.) immediately after a pain and inflammation of the fauces, which, without ſpeedy relief, hinder deglutition, and prevent breathing through the noſe, whence ſuffocation is endangered from the inflammation and tumour of the *uvula*, *tonſillæ*, and *larynx*. *This diſeaſe is extremely dangerous*,† and ſometimes kills the patient

lary glands; reſpiration and deglutition ſcarce at all diſturbed, and moſt commonly a ſlight inflammatory fever.

The third ſpecies in Scotland is called the CROUP, the fifth the BRANKS; which laſt in England is named the MUMPS.

Quinſeys are alſo ſymptomatic, and ariſe either from internal or external cauſes.—*Synopſis Noſologiæ Methodicæ*, vol. ii.

The diſeaſe deſcribed by our author is that of the firſt ſpecies; to which we ſhall particularly advert. *W.*

* *It begins with a chilneſs and ſhivering, &c.* To which we may add, there is a pain ſometimes ſhooting to the ear, with a troubleſome clamminess of the mouth and throat, and a frequent but difficult excretion of mucus; this ſpecies is never contagious; it terminates generally by reſolution, ſometimes by ſuppuration, but hardly ever by gangrene, although in this diſeaſe ſome ſloughy ſpots, commonly ſuppoſed to be forerunners of gangrene, ſometimes appear upon the fauces: it is commonly occaſioned by cold externally applied, particularly about the neck. And beſides its commonly attacking the young and ſanguine, as obſerved by SYDENHAM, there are others who have a diſpoſition to it, acquired from habit; ſo that from any application of cold to any part of the body, this diſeaſe is eaſily induced. The inflammation and tumour are commonly at firſt moſt conſiderable in one tonſil, and afterwards, abating in that, increaſe in the other. *W.*

† *This diſeaſe is extremely dangerous, &c.* Simply conſidered, it is ſeldom attended with great danger, and when it does ſo happen, it is occaſioned by the exceſſive tumefaction of the tonſils, or from the inflammation ſpreading to the glottis, larynx, and upper parts of the trachea, which

dent in a few hours, namely, when a large quantity of febrile matter is thrown upon the above-mentioned parts, and the approaching violent ſymptoms are not timely enough prevented by proper remedies. Chap. 7.

2. *In order to the cure I immediately bleed** plentifully in the arm, and preſently afterwards in the veins under the tongue; and then I order the inflamed parts to be beſmeared with *honey of roſes*, ſtrongly acidulated with *ſpirit of ſulphur*; and preſcribe the following gargariſm to be uſed The curative method delivered.

which is a rare occurrence, and producing ſuch an obſtruction to the paſſage of the air as ſuffocates, and thereby produces this fatal cataſtrophe; but in the laſt caſe, it then forms the *cynanche trachealis*. *W.*

* *In order to the cure I immediately bleed, &c.* The ſame method of treatment here is neceſſary as in other inflammations; but after general depletion from bleeding in the arm, or the jugular vein; topical bleeding upon the external fauces are extremely uſeful; ſtimulant applications, and bliſtering the neck; the vapour of warm water inhaled into the fauces; and mildly aſtringent gargles acidulated, as infuſion of roſes and the acidum vitriolicum dilutum, &c. but we muſt obſerve as cold is recommended in the antiphlogiſtic method in ſome inflammatory caſes, here it muſt be avoided. At the onſet of the diſeaſe emetics have, from experience, been proved to be extremely beneficial, but they are moſt ſafely and effectually adminiſtered after bleeding, and having promoted freely alvine evacuations; gentle diaphoretics may be given in order to produce ſweating, as obſervation has evinced, that quinſies terminating by reſolution are frequently attended by cuticular diſcharges; but ſhould the inflammation run on ſo rapidly that notwithſtanding theſe remedies, ſuppuration takes place, we muſt endeavour to aſſiſt the elimination of the matter formed as ſoon as poſſible; the ſteams of warm water received upon the internal parts of the fauces are thought productive of the greateſt uſe, and contribute much to the ſpontaneous burſting of the abſceſs; but ſhould it not ſo happen, the gland or glands affected muſt be opened, and the wounds healed. *W.*

not

Sect. 6. not in the common way, but to be held quietly in the mouth till it grows warm, and then ſpit out; and this to be repeated between whiles.

The gargariſm. *Take of the diſtilled waters of plantain, red roſes, and frogs ſpawn, of each three ounces; three whites of eggs, beat to a liquor; white ſugar, three drams: mix them together for a gargariſm.*

I alſo order the emulſions deſcribed in the cure of the pleuriſy, or the like, to be taken daily.

3. I bleed again in the arm the next morning, unleſs the fever and difficulty of ſwallowing be in ſome meaſure abated, in which caſe I give a gentle purge: much experience having taught me that this is highly neceſſary and uſeful after bleeding. If this fever and other ſymptoms are like to be violent even after purging, which yet ſeldom happens, they are to be quieted by repeated bleeding, and applying *a large and ſtrong bliſter to the back.** During the whole courſe of the diſeaſe

* *Applying a large and ſtrong bliſter to the back, &c.* The application of the bliſter to the throat, and externally over the parts affected, gives relief much ſooner, and will often very quickly take off the inflammation.

With regard to the CYNANCHE TRACHEALIS and PHARYNGÆA, it is only neceſſary to obſerve, that as they attend parts, which from the violence of affection may be more immediately dangerous, and as they are like the *tonſillaris* of the truly inflammatory kind, the different methods made uſe of in that diſeaſe, and of thoſe the moſt powerful muſt be employed, as ſoon as ever the ſymptoms declare the particular parts which give the ſpecific terms to theſe complaints, are affected.

With regard to the CYNANCHE TRACHEALIS we ſhould obſerve, that according to the accounts given of this diſeaſe by authors who have written on this ſubject, particularly Dr. HOME, it appears to be an inflammation of the membrane

diſeaſe a cooling and emollient glyſter muſt be given every morning, except on the purging day. Chap. 7.

4. I

membrane lining the upper part of the trachea, which, on diſſection, is found to be covered over, and the paſſage for the air almoſt filled up with a thick ſlough, having a fibrous and membrane-like appearance, being the viſcid remains of mucus thrown off by exudation from the inflamed parts. *A peculiar ſhrillneſs of voice, like the crowing of a cock, with a cough, but no ſickneſs, nor at firſt much difficulty of breathing*, are its diſtinguiſhing ſigns.

The CYNANCHE PAROTIDÆA, beſides the characteriſtic ſymptoms mentioned above, has the inflammation ſpreading from the parotid and maxillary glands, and affecting the muſcles and ligaments which elevate and connect the lower with the upper jaw, occaſioning ſevere pain in opening the mouth. Though the ſwelling is remarkably large, there is ſeldom any conſiderable degree of fever accompanying it. It ſeldom requires much medical aſſiſtance, and readily yields to warmth; bleeding once or twice, if neceſſary, purging, and rubbing the parts externally with linimentum volatile: there is, though, often a ſingular circumſtance belonging to this diſeaſe; as the ſwelling recedes from the glands a tumour will ſometimes affect the breaſts in women and the teſticles in men.

Dr. CULLEN ſays, theſe tumours are ſometimes hard, large, and ſomewhat painful; but in this climate are ſeldom very painful, or of long continuance. The pyrexia attending this diſeaſe is commonly ſlight, and recedes with the ſwelling of the fauces; but ſometimes, when the ſwelling of the teſticles does not ſucceed to that of the fauces, or when one or the other has been ſuddenly repreſſed, the pyrexia becomes more conſiderable, is often attended with delirium, and has ſometimes proved fatal. But upon the receding of the ſwellings of the teſticles of the males, or of the breaſts in females, the fever comes to be conſiderable, and threatens an affection of the brain, it will be proper by warm fomentations to bring back the ſwellings, and by vomiting, bleeding, and bliſtering to obviate the conſequences of its abſence. *W.*

The CYNANCHE MALIGNA.

MACBRIDE conſiders this as a variety of the *febris ſcarlatina*, and gives of it this ſhort hiſtory—It begins its attack

Sect. 6. 4. I enjoin a total abstinence from flesh and broths made thereof, allowing only *barley broth, water gruel, roast apples*, and the like for diet; and

tack with chilness, languor, sickness, and vast oppression; then succeed excessive heat, nausea, and vomiting, with a soreness in the throat; the pulse is small and depressed, but extremely quick; the breathing frequent and laborious; the skin exceedingly hot, but not perfectly dry; the tongue moist, and especially towards the root, covered with a soft, whitish mucus like cream; the tonsils enflamed and ulcerated, though not greatly swelled: on the third day the efflorescence appears, but brings no relief; on the contrary, the oppression, difficulty, and nausea increase oftentimes with purging; and the patient, who by this time begins to grow delirious, is either constantly tossing in bed, or lies in a comatose state; the strength, which has hitherto kept up more than might be expected, now entirely fails, the breathing becomes more laborious, and swallowing more difficult; and before the sixth day life ends by suffocation. —*Introduction to the modern Practice and Theory of Physic.*

Dr. Cullen says, the progress of the disease depends upon the state of the fauces and of the pyrexiæ; when the ulcers on the fauces by their livid and black colour, by the fetor of the breath, and by many marks of acrimony in the fluids, and has a tendency to gangrene, this takes place to a considerable degree, and the symptoms of a putrid fever constantly increasing, the patient dies often on the third day, and sometimes later, but for the most part before the seventh. The acrimony sometimes passes through the whole course of the alimentary canal, propagating putrefaction, and often exhausting the patient by frequent diarrhœa; or being poured out in the fauces, and again absorbed, frequently occasions large swellings of the lymphatic glands about the neck, and sometimes to such a degree, as to occasion suffocation. But these terminations do not always take place. Sometimes the ulcers of the fauces are of a milder nature, and the fever is more moderate, as well as of a less putrid kind; and when upon the appearance of the skin the fever suffers a remission; when the efflorescence continues for three or four days, till it has spread over the whole body, and then ends by a desquamation, giving a further remission of the fever; this often entirely

and *ptiſan* or *ſmall beer* for drink. The patient must likewiſe ſit up ſome hours every day; for the warmth of the bed increaſeth the fever and Chap. 7.

entirely terminates by gentle ſweats on or before the ſeventh day, and the reſt of the diſeaſe terminates in a few days more, by an excretion of the ſloughs from the fauces, while ſleep, appetite, and other marks of health return.—*Practice of Phyſic*, vol. i.

This diſeaſe ſeems to have been conſidered by Dr. MACBRIDE only in a ſtate of its greateſt violence; for he ſays, the mixture of putrefaction and inflammation requiring ſuch a contrariety of remedies, that little can be done for the patient's relief: bleeding and bliſtering, though they may procure ſome hours of eaſe from the oppreſſion and difficulty of breathing, do no permanent ſervice, and the former cannot be repeated; antimonials, even in their ſmalleſt doſes, are apt to bring on violent purging; and the progreſs of the diſeaſe is too rapid even to expect much from the cortex, ſnake-root, or any other antiſeptic.

Bleeding is very ſeldom uſeful; on the contrary, I have always found it invariably do much miſchief, as it diſpoſes ſo greatly to induce debility, and increaſe the putreſcency of the humours; it never can be allowable but in the very beginning, and then only in very athletic and plethoric habits, for the alleviation of ſome oppreſſive inflammatory ſymptoms, and even then, in theſe caſes, it contributes to hurry the patient on rapidly into the putreſcent ſtate; it ſhould, therefore, ever be avoided, but when ſome ſymptom requires inſtantaneous relief. Antiſeptics and local bliſtering are our only dependence after the exhibition of vomits, even from the beginning of the diſeaſe, and muſt be purſued through its whole courſe. When called in very early, I have repeatedly ſeen an antimonial emetic put a ſtop to the progreſs of the complaint. In this manner ſhould we begin our cure; for the vomit not only evacuates the ſtomach, but generally produces two or three alvine evacuations, and brings on a gentle diaphoreſis, which ſhould be ſupported by mild doſes of antimonials, uſing at the ſame time antiſeptic gargles, ſuch as infuſion of roſes, with tincture of myrrh, decoction of bark, &c. But ſhould there not ariſe certain ſigns of the diſeaſe being conquered by theſe means on the ſecond or third day, we muſt have recourſe to the cortex given in ſubſtance, and thrown in as

Sect. 6. and its concomitants, which I endeavour to conquer by this method. It is well worth obſerving that the *quinſey*, which is only a ſymptom of a *ſtationary fever*, muſt be treated with the ſame method which the fever demands, and accordingly, is either to be carried off by perſpiration and ſweat, or ſome other method, which the original fever whereon it depends, requires.

5. There are other fevers which ought to be enumerated amongſt the *intercurrents*, which, by reaſon of their terminating immediately ſome other way, in ſome peculiar ſymptoms, are not uſually accounted fevers; though they were originally ſuch. And the diſorder, whence the diſeaſe takes its name, is only the ſymptom of the fever, which terminates at length therein. At preſent I ſhall only briefly treat of two of theſe, namely, *a bleeding at the noſe* * and ſpitting of blood.

6. *A*

freely as the conſtitution will bear it; or it may be given by mixing the extract, powder, and tincture, in a decoction of bark, in proper proportions, as more may be given in this form than any other. Sometimes, though all theſe forms are apt to diſagree with ſome ſtomachs, under this circumſtance I have known the cold infuſion anſwer every purpoſe, and its diſagreeable effects avoided; but ſhould this prove equally offenſive, other medicines of the antiſeptic claſs muſt be tried, for it is from them alone we can expect to derive any advantage. *W.*

* *A bleeding at the noſe, &c.* SYDENHAM conſiders this as critical, and therefore merely ſymptomatic, ariſing by anaſtamoſis, from the relaxation of the ſmall veſſels pouring out their contents, conſequently ſalutary, not attended with any danger, or likely to be productive of miſchief, but from the length of its duration. HOFFMAN ſays, hæmorrhages of the noſe are alſo critical, and ſalutary very often, which in an inflammatory fever break out on a non-critical day, between

6. *A bleeding at the noſe* happens at any time of the year, and chiefly afflicts ſuch as are of a hot and weakly conſtitution, and more frequently in the decline of life, than in youth. Some ſigns of a fever appear in the beginning, which go off ſuddenly, making way for itſelf through the noſtrils; but there remains a pain and heat of the fore part of the head. The blood flows for ſome hours, and then ſtops awhile, and ſoon after breaks out anew; and this it does alternately, till at length the hæmorrhage ceaſes entirely, being ſtopped either by the uſe of remedies, or ceaſing ſpontaneouſly from the conſiderable loſs of blood; but there is danger of a relapſe every year, if the blood happens to be much heated by ſpirituous liquors, or any other way. Chap. 7. *A bleeding at the noſe*, and its ſymptoms, deſcribed.

7. In this caſe I endeavour to check the exceſſive heat and ebullition of the blood, whence the preternatural extravaſation proceeds, and to divert the force of it another way. For this purpoſe I bleed frequently and copiouſly in the arm, the blood always appearing like that taken away in a pleuriſy; I order a cooling and incraſſating diet, as *milk* boiled with thrice its How to be treated.

between the third and fourth, or even on a critical day, the ſeventh, and terminate here fevers ariſing moſt commonly from plethora. Vol. ii. ſect. 1. cap. 1. §. 18. *De Hæmorrhagiis Narium.*

This hæmorrhage may generally be left to nature; but ſhould it continue, or be ſo profuſe, that it debilitates the conſtitution too greatly, it then calls for medical aſſiſtance. This affection may be conſidered in two points of view, *active* and *paſſive*; the firſt, when it depends on the too powerful action of the ſyſtem, in which caſe bleeding, cooling regimen, and ſedatives are proper; the ſecond, when its cauſe is a local relaxation of the ſanguinary veſſels, then ſtrengtheners, aſtringents, and antiſeptics are required. *W.*

Sect. 6. quantity of water, to be drank cold, *roaſt apples*, *barley broth*, and other *ſpoon meats* made without fleſh, and likewiſe cooling and incraſſating julaps, with emulſions, as above preſcribed in inflammatory diſeaſes. I adviſe the patient to refrain from bed ſome hours every day, and not to omit taking a lenitive and cooling glyſter every day alſo; and an opiate may be exhibited every evening at bed time, in order to check the commotion of the blood. But as hæmorrhages of this kind are frequently accompanied with an acrimonious lymph, which being mixed with the blood, increaſes its motion, and opens the mouths of the veſſels; beſides revulſions and cooling, I uſually give a gentle purge, even in the height of the diſeaſe, and an opiate in a larger doſe than ordinary after the operation is over, and when the ſymptom is entirely gone off, I give another purge.

8. As to external applications, a linen compreſs, dipt in a ſolution of *ſal prunella* in cold water, and gently ſqueezed out, may be applied to the nape and both ſides of the neck, often in a day. And after general evacuations, the *following liquor may be uſed:** *Take*

* *The following liquor may be uſed.* The following form of the Edinburgh diſpenſatory is a much more judicious compoſition:

Take blue vitriol and alum, of each half a pound; water, two quarts; boil till all the ſalts are diſſolved, then filtre the liquor, and to every pint of it add a dram of the oil of vitriol.

But the following method is more effectual: "Take a piece "of ſtrong ſewing ſilk, wax it well, and to one end of it "faſten a doſſil of lint; then take a piece of catgut (about "the ſize of a ſecond ſtring of a violin) and introduce it "up

Take of Hungarian *vitriol and alum, each an ounce; the phlegm of vitriol, half a pint; boil them together till the ſalts are diſſolved; filtre the liquor, when it is cold, and ſeparate it from the cryſtals which ſhoot between whiles; laſtly, to the remaining liquor add a twelfth part of oil of vitriol. Put up a tent dipt in this liquor into the noſtril whence the blood flows, and keep it therein two days.* Chap. 7. A ſtyptic liquor.

Linen compreſſes dipt in this liquor, and applied to the part, *will ſtop an external bleeding.* *

9. A *ſpitting of blood*, which ſeizes weak perſons of a hot conſtitution and diſordered lungs, and young perſons rather than old, between ſpring and ſummer, nearly approaches the nature of the hæmorrhage juſt treated; this being a *fever* likewiſe, that loſes its name and eſſence by the *criſis*, whereby it is terminated, with this *A ſpitting of blood* deſcribed, and its cure.

" up the bleeding noſtril, when you perceive it in the " mouth, take hold of its end with a forceps, and draw it " outwards, make a knot upon it, and faſten the end of " the waxed ſilk to it; then withdraw the catgut back " again by the noſtril; take hold of the ſilk, and pull the " doſſil of lint into the poſterior noſtril, after which ſtuff " the anterior noſtril full of lint, and thus you certainly " ſtop the bleeding. After a few days the lint may be " taken away."—See *Motherby's Dictionary*, article *Hæmorrhagia.—W.*

* *Will ſtop any external bleeding, &c.* It is ſomewhat ſtrange, that our author ſhould ſo poſitively aſſert that his ſtyptic will ſtop any external bleeding. Few good ſurgeons ever make uſe of any other ſtyptic than dry lint, and all are trifling, when by a wound of the external parts an artery of any conſiderable ſize is divided; for then recourſe muſt be had to the needle and thread, which infallibly ſecures it. All ſtyptics except dry lint, though too commonly uſed in the country, are prejudicial to a wound.

Sect. 6. difference only, that in a *bleeding at the nose* the blood, being too much agitated, flows impetuously to the veins of the nostrils, whereas in this hæmorrhage it hurries to the lungs. And as in the former disorder a pain and heat in the fore part of the head continue to afflict the patient during the flux of the blood, so in this the breast is affected with pain, heat, and weakness. This disorder also requires almost the same treatment, only it will not bear purgation, which, especially if it be repeated, endangers a consumption. But frequent bleeding, a glyster injected every day, and *diacodium* taken every evening, along with a cooling and incrassating regimen, and medicines, *will effect a cure.* *

10. And

* *Will effect a cure, &c.* SYDENHAM considers this in the same point of view as the former, which will require the same mode of treatment, except the local applications, which cannot for obvious reasons be had recourse to; but in this case the blood is coughed up (and that most easily) from the lungs, and the blood is taken away from the arm, is greatly enflamed, in proportion to which, and other symptoms, bleeding must be repeated. This disorder requires the loss of a considerable quantity of blood, a strict, low diet, diluents, nitre, in fine, a close perseverance in the antiphlogistic regimen, for want of which, particularly large bleedings, it not unfrequently terminates in consumption: though we must here observe, that when hæmorrhages happen from a putrescent acrimony of the fluids, as they sometimes do in putrid fevers, our chief dependance must be on antiseptics; bleeding here would be injudicious, and extremely prejudicial.

In cases of hæmorrhage, the use of saturnine united with opiates have been recommended in the third volume of the London Medical Transactions by Dr. Reynolds, in the following form:

℞. Cerussæ acetatæ Ph. Lond. novæ, gr. j.
Conservæ rosæ rubræ, gr. iv.

Tinc-

10. And theſe are the particulars I have hitherto obſerved, concerning that numerous tribe of diſeaſes, which is divided into different ſpecies, and comprehended under the *generical* name of *fevers*, and of the ſymptoms thereon depending; in which I have ſolicitouſly endeavoured not to intrude my own inventions and imaginations on the world, but with a candid and honeſt mind (and conſequently attached to no hypotheſis) have given the hiſtory of the diſeaſes themſelves, and their natural concomitants, and ſubjoined the method of cure with equal caution and truth. And if an earneſt deſire of diſcovering and eſtabliſhing a more certain method of curing diſeaſes has led me to ſtrike out a new road, it is hoped that none of the learned will accuſe me, either of contemning their judgement, and truſting too much to my own, or a love of novelty; ſince the ſucceſs which has attended my inquiries, has hitherto much encouraged me, and the experience of

The obſervations hitherto delivered quite practical.

Tincturæ opii P. L. novæ, gut. iij.
F. pilulæ ſextis horis ſumendæ.

The ceruſſa may be occaſionally increaſed to one grain and a half, and which he has given with ſucceſs; nor have they been attended with thoſe evil conſequences, which have been attributed to them by Sir George Baker and others. I muſt confeſs I have ſeen them extremely beneficial, united with opiates, in ſimilar caſes, as well as the colliquative diarrhœa in phthiſical patients; but have always interpoſed occaſionally gentle laxatives: the ſaturnine preparation I have generally made uſe of, was the aqua lythargyri acetati from two to five or ſix drops every eight hours, joined with tinctura opii; and I muſt confeſs I have always found them uſeful, often efficacious; nor have I ever perceived thoſe diſagreeable conſequences attending their exhibition, as repreſented by ſome authors, who have written ſo ſtrongly againſt their being adminiſtered. *W.*

my

Sect. 6. my successors will undoubtedly vouch for my veracity and honesty.

Fevers destroy two thirds of mankind.

11. In reality, this destructive tribe of diseases which afflicts mankind daily, and destroys at least two thirds of the human species, excepting such as die of a violent death, is not to be opposed in an indolent manner. The continued violence of these distempers, and the daily destruction of robust and young persons especially, notwithstanding all the helps which the specious methods, so confidently delivered by theoretical authors, have hitherto afforded, gave me little satisfaction when I first considered the matters; for I clearly perceived that those trifling disquisitions were so little conducive to the cure of diseases, that such as had recourse to these refuges were not more safe, notwithstanding the pretensions of their dogmatic authors, than such as neglected the assistance of art, and trusted wholly to nature.

12. If therefore I have contributed in some measure to lessen the difficulty and danger that frequently occur in the cure of these diseases (as without breach of modesty I may presume I have) I have gained my end in part, and enjoy the pleasing reward of my labours, well spent in promoting the good of mankind. These are nearly all the principal discoveries I have hitherto made, or at least all those that I could reduce to any method, with relation to fevers, and the symptoms thereon depending, to the thirtieth of *December*, 1675, when I finished these essays.

An EPISTLE *of* ROBERT BRADY, *M. D. Maſter of* Caius *College*, Cambridge, *and Regius Profeſſor of Phyſic there, to Dr.* SYDENHAM.

Learned Sir,

NO phyſician but yourſelf has hitherto attentively conſidered the force of the air, and its influence on the human body, the manner of its acting in preſerving life, the great ſhare it has in the fermentation, alteration, and circulation of the blood, and in performing animal motion. Neither have phyſicians or naturaliſts ever ſearched diligently and accurately into its natural temperature and manifold changes; which *conſtitutions* you have judiciouſly delineated.*

In reality, as the air inſinuates itſelf into all, even the remoteſt parts of the body, it muſt needs communicate the changes it undergoes from the ſubſtances wherewith it is impregnated to the blood and juices; and hence any particular depravity of the blood generally ariſes from ſome certain ill conſtitution of the air. You have, therefore, wiſely formed your medicinal obſervations of the hiſtory and cure of *acute diſ-*

* However truly this might be then ſaid of our author, yet ſince his time the ingenious Dr. *Arbuthnot* has given us a valuable treatiſe on air; and *Boerhaave* and *Hoffman* have treated largely of it, both philoſophically and medically; *Bernerus*, another learned foreign phyſician, has wrote a judicious eſſay on it, entitled, *Exercitatio de uſu Aeris mechanico in corpore humano*, printed at Amſterdam in 1723; and Dr. *Huxham*, *de Aere & Morbis epidemicis*; to which we refer our readers for abundant ſatisfaction on this intereſting ſubject.

eaſes,

eaſes agreeably to the various *conſtitutions* of years and their ſeaſons; for the impreſſions of the air upon the blood and juices, and eſpecially upon the ſpirits, which perhaps are formed of air, are manifeſt in theſe; and I am perſuaded that the nature of fevers, as deduced from obſerving the temperature of the air in thoſe years wherein they prevailed, conſtitutes the moſt uſeful, if not the only method of eſtabliſhing a ſure baſis for practice. Let me intreat you, therefore, if you have any obſervations relating to the fevers of the immediately preceding years, to publiſh them, by which means you will highly promote the good of mankind.

In *Sect.* I. *Chap.* V. of your work, you have briefly treated of the uſe and manner of giving the bark. I know ſome eminent phyſicians, who give it in a large quantity, and repeat it frequently; and others who prepare extracts and infuſions of it, and make the infuſions into emulſions, julaps, *&c.* affirming that by theſe means they can certainly cure intermittents, and likewiſe ſome continued fevers. It is doubtleſs an excellent remedy in intermittents, and I have uſed it twenty years ſucceſsfully in a variety of forms and preparations. If, however, you have experienced any particular or better method of giving it, pray publiſh it.

In the cure of the rheumatiſm you have propoſed frequent and copious bleeding as neceſſary; * I ſhould be glad to know if it will not yield with equal certainty to ſome gentler method. But whilſt you employ your time in theſe ſtudies, you will be grievouſly cenſured and

* See Sect. vi. Chap. v. par. 4.

calum-

calumniated by envious and malicious men, who will no more ſpare your name and reputation on this occaſion, than they did formerly, though by uſing you ſo ill they incur the diſpleaſure of the candid and ingenuous part of mankind, who generally treat ſuch ſlanderers with contempt.

And, in reality, if they would be acquainted with a hiſtory of fevers, their eſſences, cauſes, differences, and true method of cure, derived from a long courſe of experience, they muſt neceſſarily follow you as their guide, as there is ſcarce any other way of coming at this knowledge, except that which you have diſcovered.

Be not deterred, therefore, from purſuing your inquiries; deſpiſe the raillery of the ſuperficially learned, and aſſiſt the candid part of mankind: you have pointed out the way, and if your endeavours diſpleaſe, it lies upon thoſe, who cenſure them, to ſhew us a better.

I take my leave, worthy Sir, with aſſuring you that your compliance with my requeſt will oblige the whole faculty, and, amongſt the reſt,

Your moſt obliged Friend,

R. BRADY.

Cambridge,
Dec. 30, 1679.

Dr.

Dr. SYDENHAM's *Anſwer to Dr.* BRADY; *containing the Hiſtory of the epidemic Diſeaſes from the Year* 1675 *to* 1680.

Dear Sir,

The author's modeſty.

1. IF I have in the leaſt contributed by my obſervations to improve the methods of cure in diſeaſes, it doubtleſs becomes me in particular to communicate them, more freely than other men, to thoſe who deſire it; for as I am ſatisfied that my knowledge does not exceed that of others, it can do me no prejudice to publiſh ſuch trite and inconſiderable remarks. If, therefore, I have made any beneficial diſcoveries in phyſic, and better aſcertained the methods of cure in diſtempers, the imparting them does not entitle me to the ſame praiſe, as it would do others who can eaſily imagine the vaſt ſatisfaction it would afford me, who have had the gout theſe thirty years, and been a long time ſeverely afflicted with the ſtone, to be informed of a method that would give me relief.

The duty of eminent men.

2. But few perſons are endowed by Almighty God with ſuch qualifications, as may make them ſerviceable to mankind in this caſe, and it can only be ſucceſsfully accompliſhed by thoſe whoſe abilities are ſuperior to mine. Nevertheleſs I have always thought it a greater happineſs to diſcover a certain method of curing, even the ſlighteſt diſeaſe, than to accumulate the largeſt fortune: and whoever compaſſes the former, I eſteem not only happier, but better and wiſer too. For can a perſon give a ſtronger proof of his benevolence and wiſdom, than by endea-

endeavouring always to promote the public good, rather than his private intereſt, as he makes ſo ſmall aud inconſiderable a part of the whole? For to uſe the expreſſion of *Cicero*, that great maſter of thought and diction, and genius of his age, I may ſay of mankind; *As the laws prefer the good of the whole to that of particulars, ſo a wiſe and good man, who knows his duty and obeys the laws, conſults the good of mankind more than his own or any ſingle perſon's.** And in reality, as it is the part of a wicked man to deſtroy his fellow-creatures, ſo it is the duty of a good man to preſerve them, and inſtruct others how to ſave them from death, even after his own deceaſe. Nor can any thing be more inhuman and deteſtable, than to inſinuate a diſregard and unconcern for whatever misfortunes may happen to mankind after our death.

The author complains of injurious treatment.

3. But, not to inſiſt upon theſe particulars at preſent, I muſt own, I think myſelf obliged to communicate to you the diſcoveries I have made relating to the diſeaſes you inquire after, however trifling they ſeem. I muſt likewiſe return you thanks for the reſentment you are pleaſed to expreſs of the ill treatment I have received from ſome perſons, whoſe cenſure I ſhould have eſcaped, if the blameleſs conduct of a perſon who has injured no man in words or actions, could have ſecured me. But ſince this has been occaſioned by no fault of mine, nor I hope ever will, I am determined to give myſelf little concern for the failings of others, being convinced that all that is incumbent on me, is to act like an honeſt man, and diſcharge the office of a good phyſician to the beſt of my ability.

* Cic. *de fin. bon. & mal.*

Epidemics to be firſt treated of, and in what manner.

4. I will therefore deliver the obſervations I have made concerning the diſeaſes you inquire after in your letter. And, firſt, I will treat of the preſent epidemic intermittents; in doing which I conceive it may be proper to run through thoſe years methodically, but briefly, which ſucceeded that wherein I conclude my hiſtory of the *acute diſeaſes*, which had prevailed for fifteen years preceding, and juſt to recapitulate ſome particulars relating to their cure that have already been taken notice of. By this means we ſhall more clearly perceive at what time, and by what degrees, the preſent reigning conſtitution of fevers crept in.

The diſeaſes of 1676 the ſame with thoſe of the three former years.

5. The year 1676 gave riſe to the ſame tribe of diſeaſes as were generated by the conſtitution laſt mentioned, in our obſervations above delivered, *viz.* thoſe of 1673, (in the autumn whereof it firſt began) 1674, and 1675. But this conſtitution being in its decline, the diſeaſes that appeared were milder than ordinary, and not ſo epidemic, notwithſtanding the peculiar diſpoſition of this year with reſpect to the manifeſt qualities of the air, in which it differed conſiderably from the preceding years; for the heat of the ſummer, and the cold of the winter, were much greater than in moſt years within my remembrance. And yet, as ſo great a diſſimilitude of ſeaſons gave riſe to ſimilar diſeaſes, it is plain from hence, that *the ſecret temperature of the air* * favours their production *more than its manifeſt qualities*. But it muſt be owned that the ſame

* *The ſecret temperature of the air, &c.* Perhaps our author aſcribes too much, here and elſewhere, to the *ſecret temperature of the air*, which, probably, has a great ſhare

ſame diſeaſes, with reſpect to ſome certain ſymptoms, depend ſometimes on the manifeſt diſpoſition of the air as appears from the *meaſles* and *cholera morbus* of this year, of which I ſhall briefly treat.

6. Thus the *meaſles* that appeared in the beginning of the year, though they were not very epidemic, were remarkable for their longer duration; for whereas they began as uſual in *January*, increaſed till the vernal equinox, and then abating gradually, almoſt went off at the ſummer ſolſtice; they continued this year till near the autumnal equinox, occaſioned perhaps by the ſummer's heat, whence they gained force, ſo as to laſt longer; yet nevertheleſs they required no new method of cure. The *meaſles* laſted long this year.

7. At the cloſe of ſummer the *cholera morbus* raged epidemically, and being rendered more ſevere by the extraordinary heat of the ſeaſons, was accompanied with more violent and invete- A very violent *cholera morbus* raged at the cloſe of ſummer.

ſhare in the production of contagious diſeaſes; but how it influences thoſe of another ſpecies, has not hitherto plainly appeared; whereas, on the contrary, the *manifeſt* or *ſenſible qualities of the air*, ſuch as its heat, cold, dryneſs, moiſture, &c. have evidently a conſiderable power over epidemic diſeaſes, the ſymptoms whereof ſeem to take their riſe, ſuffer great variations, and are ſatisfactorily accounted for from the preceding, or the then reigning manifeſt diſpoſition of the air, or both jointly. The different ſeaſons of the year, the variation of the winds, the ſituation of places, the nature of the waters, and the manner of living of the inhabitants, are alſo to be conſidered in this view, as theſe eminently contribute to the riſe and courſe of epidemic diſeaſes. For proof of this the reader may conſult Dr. WINTRINGHAM's *Commentarium Noſolog.* HUXHAM *de Aere & Morb. epidem.* HILLARY's *Account of the principal Variations of the Weather, and the concomitant epidemic Diſeaſes at* RIPPON, &c. *during the ſpace of eight years, which is added to the ſecond edition of his Eſſay on the* SMALL POX. RAMAZZINI *Conſtitut. epidem. Mutinenſ.* HOFFMAN. *Med. rat. Syſt.* &c.

rate convulſions, than I had hitherto obſerved. For not only the *abdomen* (which is uſually in this caſe) but all the muſcles of the body, and eſpecially thoſe of the arms and legs, were affected with terrible ſpaſms, ſo that the patient would ſometimes leap out of bed, and writhe himſelf all manner of ways, in order, if poſſible, to mitigate their violence.

It required ſtronger opiates than ordinary. Exemplified in a caſe.

8. But though this diſeaſe admitted of the uſual method of cure, yet ſtronger *opiates*, and a frequent repetition of them than ordinary, were manifeſtly indicated. To exemplify this obſervation: I was called to a perſon at this time, who was reduced to the laſt extremity by the above-mentioned ſymptom, attended with exceſſive vomiting, cold ſweats, and a ſcarce perceptible pulſe: Dr. *Goodal* accompanied me (whoſe name I can never mention, without calling to mind his probity and candour, his indefatigable endeavours to diſcover and cure diſeaſes, and his friendſhip for me; I gave the patient twenty-five drops of my *liquid laudanum* in a ſpoonful of *ſtrong cinnamon water*, for as there was a very great inclination to vomit, I was apprehenſive that a larger quantity of the vehicle might occaſion the medicine to be vomited up, as it often happens in ſuch caſes. I waited near half an hour, and finding the medicine too weak to ſtop the vomiting, and take off the convulſions, I was obliged to repeat it, and increaſe the doſe proportionably, till theſe obſtinate ſymptoms were at length quieted; obſerving however to give it at ſuch intervals, that I might be able to conjecture what effect the laſt doſe would have, before I exhibited another. The convulſions, notwithſtanding, being apt to return

return upon the leaſt motion, I ſtrictly enjoined that the patient ſhould be kept very ſtill for a few days, and take the above-mentioned medicine between whiles in a ſmaller quantity, even after his recovery, in order to prevent a relapſe: and this method had the deſired ſucceſs.

The author's reaſons for giving *laudanum* copiouſly.

9. Nor ought I to be accounted too bold for exhibiting *laudanum* ſo plentifully, ſince experience will clearly ſhew, that in diſorders where opiates are indicated, *viz. violent pain, and vomiting*, or an immoderate *looſeneſs* and great hurry *of the ſpirits*, the doſe of the medicine, and its repetition in point of frequency, muſt be proportioned to the urgency of the ſymptom. For ſuch a doſe as may conquer a ſlight ſymptom, will be rendered ineffectual by a more violent one; and what would otherwiſe endanger life, will in ſuch a caſe be a means of preſerving it.

Prevented by ſickneſs from obſerving the diſeaſes of 1677.

10. Theſe are the diſeaſes that prevailed this year, being the ſame, as I have already intimated, with thoſe of the three preceding years. But I can give no account of thoſe that raged in the following year, *viz.* in 1677. For at the beginning of it I made bloody urine upon the leaſt motion, and was ſoon after attacked with the gout, which did not affect my limbs ſo much as my bowels, where I had violent pain; and theſe diſorders were ſucceeded with a decay of ſtrength, a loſs of appetite, a ſwelling of the legs, and other dangerous ſymptoms; ſo that death would then have been welcome to me. My ill ſtate of health at this time confined me within doors for three months, and afterwards obliged me to go into the country for my recovery, and make almoſt as long a ſtay there. I came back to town in autumn, when my friends informed me, that

there ſtill remained a few intermittents here and there, moſt of which had firſt ſeized the patients in the country; but having been prevented from attending the ſick by my own indiſpoſition, I can give no account of the diſeaſes of this year.

Intermittents aroſe, and became epidemic in 1678.

11. The conſtitution of the following year, namely of 1678, being entirely changed, ſo eminently favoured *intermittents*, that they again became epidemic, whereas from 1664 to this time, including the ſpace of thirteen years, they were in a manner extinct in town, except only that they ſeized a few *ſporadically*, or were by accident brought with them out of the country. And they will not continue in this ſtate, but will ſpread much more, till this conſtitution of the air whence they proceed comes to its height. For though only a few of theſe *intermittents* aroſe in the ſpring, yet they prevailed ſo much over all other diſeaſes at the decline of ſummer and beginning of autumn, as to be the ſole epidemic diſeaſes. But in the winter they yielded by degrees to the *ſmall pox*, and the other reigning epidemics, till the return of the ſeaſon peculiar to them.

Tertians and *quotidians* moſt frequent.

12. To proceed now to deliver what we have learnt by diligent obſervation, relating to the nature and cauſes of theſe fevers. Firſt then it is to be noted, that though *quartans* were more frequent formerly, yet now *tertians* or *quotidians* were moſt common, unleſs the latter be entitled *double tertians*; and likewiſe, that though theſe *tertians* ſometimes began with chilneſs and ſhivering, which were ſucceeded firſt by heat, and ſoon after by ſweat, and ended at length in a perfect intermiſſion, returning again after a fixed time,

time, yet they did not keep this order after the third or fourth fit, especially if the patient was confined to his bed, and used hot cardiacs, which increase the disease. But afterwards this fever became so unusually violent, that only a *remission* happened in place of an *intermission*; and approaching every day nearer to the species of continued fevers, it seized the head, and proved fatal to abundance of persons.

Dangerous to attempt their cure by *sudorifics*.

13. As to the cure, I have learnt by many years experience, that it is dangerous to attempt to remove *tertians* and *quotidians* by *sudorifics*, especially when they are recent, and have assumed no certain shape; for they then nearly approach to continued fevers. And though it is well known that as soon as the sweat breaks out, the restlessness and other symptoms presently go off, and a perfect intermission succeeds, and consequently that it should be somewhat promoted, or at least not hindered, when the fit is going off, yet it is manifest that if sweat be forced beyond the due degree, the intermittent becomes a continued fever, and life is endangered. I conceive the reason of this to be, that so profuse a sweat (since it exceeds the quantity of the febrile matter, already so attenuated by the heat of the fit, that it may now be expelled by despumation) after it has carried off such a part thereof, as is sufficient to produce a single fit, wastes the rest in inflaming the blood. Upon considering, therefore, the inefficacy of this method, and the inconveniences attending other evacuations, as bleeding and purging, both which, by weakening the texture of the blood, prolong the disease, the *Peruvian* bark afforded me the surest hope; of

which I can truly ſay, notwithſtanding the prejudice of the vulgar and a few of the learned, that I never found, or could reaſonably ſuſpect, any ill conſequence follow its uſe; unleſs that ſuch as have taken it a long time are ſometimes ſeized with a *ſcorbutic rheumatiſm*, as I have before remarked in treating of the *Rheumatiſm*. *But this diſorder ſeldom proceeds from this cauſe*,* and, when it does, readily yields to the remedies there preſcribed.

The *bark* not only good in intermittents.

14. And, in reality, if I were as certain of the continuance of its effects, as I am of the innocence of the *bark*, I ſhould not ſcruple to prefer it to all the medicines hitherto known; ſince it is not only excellent in this diſeaſe, but likewiſe in thoſe of the *uterus* and ſtomach: ſo little reaſon is there to complain of its unwholeſomeneſs.

Why it has been exclaimed againſt.

15. But I conceive the bark has been condemned, chiefly, for the following reaſons: (1.) Becauſe the many terrible ſymptoms, which accompany intermittents of a long ſtanding, where not a grain of the bark has been given, are im-

* *But this diſorder ſeldom proceeds from this cauſe, &c.* Our author in a former part of his work, ſect. 6th, chap. 5th, par. 13, attributes as the cauſe of the ſcorbutic rheumatiſm, a long courſe of Peruvian bark: I have not found ſuch ill effects mentioned by any other author, whoſe works have fallen into my hands; but on the contrary we have had many inſtances of the rheumatiſm, where attended with a relaxed ſtate of the ſolids, and an acrimony of the fluids, cured by this medicine: nor do we find the action of arum, a medicine Sydenham depends upon for curing the rheumatiſm, very diſſimilar to that of bark, as they both are ranked amongſt the claſs of ſtimulants, ſtimulate the ſtomach, promote perſpiration and digeſtion, and increaſe the action of the ſerous fluids, upon which, probably, the cure of rheumatic affections in a great meaſure depends. *W.*

mediately

mediately aſcribed to it, upon taking but a ſingle doſe of it. (2.) *Becauſe it cures the diſeaſe by a ſecret virtue*,* and not by any ſenſible evacuation, many perſons conclude that the morbific matter, which ought to have been expelled, is retained in the body by its aſtringency, and ready to occaſion freſh diſturbance, the diſeaſe not being entirely carried off. But ſuch perſons do not ſufficiently conſider, that the ſweats happening at the decline of the fit have expelled all the morbific matter that was collected on the well days, ſo that only the ſeeds of the diſeaſe remain, to be ripened in time; and that the *bark*, by cloſely purſuing the retiring fit, and cutting off the ſupplies of the illneſs, cannot be a means of retaining the morbific matter in the blood, which is now exiſtent

* *Becauſe it cures the diſeaſe by a ſecret virtue, &c.* With regard to the ſpecific power of medicine, *ſee our Note on ſpecifics in the author's preface.* On conſidering the admitted action of bark we ſhall be led to a different mode of reaſoning on this ſubject, and ſay, that from increaſing inſenſible perſpiration, and the tone of the ſyſtem, it not only prevents a collection of morbific matter, but ſuffers it to paſs through the habit without producing its effects, by rendering the conſtitution incapable of feeling the power of miaſmatic action; and hence it is that intermittents are prevented from returning, which they are apt to do, if the patient immediately deſiſts from the uſe of bark, on the firſt appearance of the diſeaſe being conquered; for in order to hinder a return of the paroxyſms, it is adviſeable to continue the medicine for three or four days regularly after the cure appears to be eſtabliſhed; then omit it for a few days, and return to it again; then again leave off its application for a week, or ten days, and have again recourſe to it; and ſo go on for a longer or ſhorter ſpace, as may appear requiſite for the total re-eſtabliſhment of former health. By this means time will be allowed for the free exit of the remains of the morbid matter, which otherwiſe, if ſuffered to continue in the habit in the ſmalleſt proportion, would recall the febrile acceſſions afreſh. *W.*

there only in *embryo*; and conſequently is not to be eſteemed productive of thoſe fits and obſtructions which are commonly judged to proceed from its uſe.

It does not appear to cure by its aſtringency.

16. But how does it appear that the *bark* cures *intermittents* by its aſtringency? In order to prove this, other aſtringents, poſſeſſed of the ſame virtue, muſt firſt neceſſarily be produced; I have tried the ſtrongeſt ineffectually. Beſides, *the bark cures even where it purges*,* which is ſometimes the caſe. Upon the whole, therefore, they act the wiſeſt part, who confine their inquiries to their abilities. But if any body will delude himſelf, and imagine that he is poſſeſſed of other faculties than ſuch as either help him to underſtand natural religion, which teaches that God, the creator and governor of all things, is to be worſhipped with profound veneration, as he juſtly merits; or moral philoſophy, that he may practice virtue, and make himſelf an uſeful member of ſociety; or, laſtly, the medical, ma-

* *The bark cures even where it purges, &c.* Under ſome particular circumſtances it is neceſſary even to join purgatives with bark, where obſtructions in the abdominal viſcera, and aſtriction of the alimentary canal are prevalent: and perhaps it is on this account that the purgative effects of bark adds ſometimes to its ſalutary power. But when theſe are removed this effect will fruſtrate our intention: for it is found that every debilitating power applied to the body, ſuch as evacuations, cooling medicines, &c. favour the return of intermittents; hence, then, the evacuation produced, either by bark itſelf, or other ſubſtances, does more than compenſate by its weakening effects, the power of the bark in ſtrengthening the tone of the fibres; ſometimes, however, effects may be mixed, and bark anſwers where a purging enſues. Here, although the chief operation of the bark be on the ſtomach, yet a part of it may be carried into the blood, and obviate, compenſate, or overpower the effects of purging. — Cullen's *Materia Medica.*

thematical,

thematical, and mechanical arts, which are ſo uſeful to the purpoſes of life: let him, firſt, deduce an hypotheſis from natural philoſophy, that will enable him to explain the cauſe of but a ſingle ſpecific difference of things in nature; for inſtance, let him account for the univerſal greenneſs of graſs, and why it is never of any other colour, and the like. And if he can do this, I will readily embrace his ſentiments; but if not, I ſhall not ſcruple to affirm, that all the diligence and caution of a phyſician ſhould be employed in inveſtigating the hiſtory of diſeaſes, and applying thoſe remedies which ſtand recommended by experience for the cure thereof; purſuing, notwithſtanding, that method which is founded on right reaſon, and not the reſult of idle ſpeculations. I will therefore briefly deliver what experience hath taught me, relating to the method of exhibiting the *bark*.

A ſhort hiſtory of the *bark*.

17. The *Peruvian bark*, commonly called the *Jeſuit's powder*, to the beſt of my remembrance, began to be eſteemed at *London*, for the cure of intermittents, and eſpecially *quartans*, about twenty-five years ago; and indeed very deſervedly, as theſe diſeaſes were ſeldom cured before by any other method, or medicine; whence they were reputed the *opprobria medicorum*, and not without reaſon. But not long after it loſt its character, and was entirely diſuſed for two cogent reaſons: (1.) Becauſe being exhibited only a few hours before the coming of the fit, according to the received cuſtom of that time, *it ſometimes deſtroyed the patient*;* which I remember

* *It ſometimes deſtroyed the patient, &c.* We have before pointed out the moſt proper time for giving the bark in order

member happened to Mr. *Underwood*, a citizen and alderman of *London*, and to Captain *Potter*, an apothecary in *Black Friars*. This fatal effect of it, though very rare, did, however, juſtly prevail with the moſt prudent phyſicians to refrain its uſe. (2.) Becauſe though it ſeldom failed to free the patient from the fit, that would otherwiſe have come, yet the fit commonly returned again in a fortnight, eſpecially when the diſeaſe was recent, and not ſpontaneouſly abated by length of time. Theſe reaſons weighed ſo much with the generality, that they loſt all the hopes they had formerly conceived of this medicine; nor did they eſteem it ſo material to prevent the acceſs of a fit for a few days, as upon this account to endanger their lives by taking it.

The beſt medicine in intermittents.

18. But having ſome years ſince thoroughly conſidered the extraordinary virtues of the *bark*, I was firmly perſuaded that *intermittents* could not be better cured than by this efficacious medicine, provided it were given with proper caution. For this reaſon I ſpent much time in ſtudying how to prevent the danger enſuing from its uſe, and the relapſe that ſucceeded in a few days, which were the two inconveniences to

order to enſure its efficacy, pag. 92, note *; yet ſtill we have had various proofs of its being adminiſtered at different periods before the fit; nor have we ſeen any ſuch fatal effects ariſe from its being exhibited in this manner; indeed there are few inſtances of it upon record, and of late years we have neither heard, or read of any ſuch conſequences produced by it; we are therefore rather inclined to think that the circumſtance here mentioned by our author ought not to be aſcribed to the time of this medicine being adminiſtered, but to ſome other undiſcovered cauſe; for of a more effectual and ſafer medicine in theſe caſes the whole Materia Medica cannot boaſt. *W.*

be

be avoided, and by means thereof to reſtore the patient to perfect health.

19. (1.) I conceive that the danger proceeded leſs from the *bark* itſelf, than from the unſeaſonable uſe thereof; for when a large quantity of febrile matter is collected in the body on the well days, the *bark*, if taken immediately before the fit, obſtructs the expulſion of the morbific matter in the natural way (namely, by the violence of the fit) which being hereby improperly detained uſually endangers life. But I judged I could remedy this evil, and likewiſe prevent the freſh generation of febrile matter, by giving the powder directly upon the departure of the fit, ſo that a ſtop might be put to the next ſucceeding one; and by repeating it on the intermediate days, at proper diſtances, till the approach of a new fit; ſo that by this means the blood might be impregnated gradually, and conſequently ſafely, with the ſalutary virtue of the *bark*. How rendered more certainly effectual.

20. (2.) As the relapſe, which generally happened in a fortnight, ſeemed to me to be occaſioned by not ſufficiently impregnating the blood with the virtue of the febrifuge, which, however efficacious, was not powerful enough to cure the diſeaſe at once, I judged *that the beſt method to prevent a relapſe* * would be to repeat the powder, at proper intervals, before the virtue of the preceding doſe was quite ſpent, even though the *intermittent* appeared to be conquered for the preſent.

* *The beſt mode to prevent a relapſe, &c.* See Note *, pag. 439.

21. Theſe

The method ſpecified.

21. Theſe conſiderations led me to the following method, which I now uſe. When I am called to a perſon afflicted with a *quartan*, ſuppoſe on a *Monday*, if the fit is expected the ſame day, I refrain from doing any thing, and only give the patient hopes that he ſhall be freed from the next fit. And, in order to effect this, I exhibit the *bark* upon the two intermediate or well days, namely, *Tueſday* and *Wedneſday*, in the following manner:

The febrifuge electuary.

Take of Peruvian *bark, very finely powdered, one ounce; ſyrup of cloves, or of dried roſes, enough to make it into an electuary; to be divided into twelve doſes, whereof let the patient take one every fourth hour, beginning immediately after the fit is gone off, and drinking after each doſe a draught of any kind of wine.*

Or, if pills be more agreeable,

The febrifuge pills.

Take of the Peruvian *bark, very finely pulverized, one ounce; ſyrup of cloves, enough to make it into pills of a middling ſize; of which let the patient take ſix every fourth hour.*

*But an ounce of the powder** may be mixed with a quart of *claret*, with leſs trouble, and equal ſucceſs,

* *But an ounce of the powder, &c.* Dr. Barker *in his Inquiry into the epidemic Fever*, after obſerving that by the common method of giving medicines in trifling and inſufficient doſes, good ones are but too often brought into diſrepute, the intention of the *phyſician* fruſtrated, and the patient's expectation diſappointed, acquaints us that *phyſicians* ran into this error formerly, with relation to the *bark*, through an over cautiouſneſs, and that *Sydenham* was the firſt that broke through this conſtraint, and ventured to give it in large doſes. I have a letter of his, (he adds) in manuſcript

ſucceſs, and eight or nine ſpoonfuls of it given at the intervals above mentioned. I order nothing on *Thurſday* when the fit is expected, becauſe for the moſt part it does not come, the remainder of the febrile matter being deſpumated, and expelled the blood, by the uſual ſweats which terminated the preceding fit, and a collection of freſh matter being prevented by the repetition of the powder on the days between the fits.

22. But in order to prevent a relapſe, which was one of the inconveniences above recited, on the eighth day after taking the laſt doſe, I always ordered the ſame quantity of the powder, (*viz.* an ounce divided into twelve doſes) to be taken exactly as the former was. But though a ſingle repetition of the *bark* in this manner frequently cures the diſeaſe, yet the danger is not over unleſs the patient will be ruled by his phy-

The firſt quantity of the *bark* to be repeated three or four times.

nuſcript now before me, wherein he ſays, "I have had but "few trials, but I am ſure that an ounce of *bark*, given be-"tween the two fits, cures, which the *phyſicians* in *London*, "not being pleaſed to take notice of in my book, or not "believing me, have given an opportunity to a fellow, "that was but an apothecary's man, to go away with all "the practice on *agues*, by which he has got an eſtate in "two months, and brought great reproach on the faculty." —This letter was wrote in *October* 1667, which falls in ſo exactly with the time of *Talbor*'s firſt appearance as a practitioner, (for we have an account of his being in *France* in 1679*) that *Sydenham* muſt certainly allude to him. And it appears from hence that *Sydenham* was the perſon who ſtruck out the method of giving an ounce of *bark* between the fits, inſtead of a dram, or two, which was the uſual doſe before that time; which method Sir *Robert Talbor* has generally hitherto had the credit of, and for which he was knighted by king *Charles* II.

* Feoffroy, Materia Medica, tom. ii. pag. 183.

ſician,

ſician, and repeat it thus a third or fourth time; eſpecially when the blood has been impoveriſhed by ſome preceding evacuation, or the body unadviſably expoſed to the cold air.

To be given with *laudanum*, if it purges.

23. Now though there is no inherent purgative virtue in this medicine, yet a violent purging is frequently occaſioned thereby, from ſome peculiar *idioſyncraſy* in the conſtitution. In this caſe it is indiſpenſably neceſſary to exhibit *laudanum* therewith, to prevent its having this effect (which is manifeſtly as oppoſite to its own nature, as it is to this diſeaſe) and that it may be retained long enough to anſwer its ends. Therefore I order ten drops of *laudanum*, to be given in a little wine, after every other doſe of the powder, if the looſeneſs continues.

The ſame proceſs to be uſed in *tertians* or *quartans*.

24. I follow the ſame method in other intermittents, whether *tertians* or *quartans*; for immediately after the fit is gone off, in both I adminiſter a doſe of the powder, and repeat it as frequently during the intermiſſion, as the nature of the diſeaſe will admit; but with this difference, that whereas a *quartan* can very rarely be cured with leſs than an ounce divided into proper doſes, a tertian may be ſo far conquered with ſix drams, or at leaſt to give a reſpite.

Though there be only a remiſſion.

35. But though *tertians* and *quotidians* after a fit or two may ſeem entirely to intermit, yet, as I have before obſerved, they afterwards frequently degenerate into a kind of continued fever, and only come to a *remiſſion* even on thoſe days that promiſed an *intermiſſion*; eſpecially when the patient has been kept too warm in bed, or been tormented with medicines to carry off the intermittent by ſweat. In this caſe, I have no other way left, but to ſeize the opportunity

of

of the *remiſſion*, though it be ever ſo ſmall; and accordingly I give the powder immediately after the fit is gone off, as near as I can conjecture, and repeat it every four hours, as above mentioned, without waiting for a regular intermiſſion, becauſe otherwiſe the *alexiterial* virtue of the *bark* cannot be communicated to the blood in ſo ſhort an interval.

26. And though the preſent reigning *intermittents*, after the ſecond or third fit, incline to *continued* fevers, yet they muſt be referred to the *intermittent* kind; and therefore I ſcruple not to order the *bark*, even in the moſt continued of this ſort; the repetition of which in the above-mentioned manner will certainly remove the diſeaſe, provided the conſtant warmth of the bed, and the improper uſe of cardiacs, have not rendered it a *continued fever*; in which caſe I have frequently found the *bark* fail. Nor have I ever found the wine wherein the *bark* is adminiſtered, do the patient any harm, which might reaſonably be ſuſpected; but contrariwiſe, the heat, thirſt, and other febrile ſymptoms, generally went off, ſoon after taking a ſufficient quantity of it. But it muſt be noted here, that the nearer the *intermittent* approaches to a *continued fever*, either ſpontaneouſly, or from uſing too hot a regimen, the more neceſſary it is to exhibit a large quantity of the *bark*; for I have ſometime found that the *intermittent* would not yield to leſs than an ounce and half, or two ounces of the *bark*.

The more the intermittent tends to a continued fever, the more bark muſt be given.

27. As ſome perſons can neither take the *bark* in powder, in an electuary, nor in pills, I give them an infuſion of it, made with two ounces of

To be given in infuſion, where it can be taken in no other form.

of *bark*, groſſly powdered, and infuſed cold for ſome time in a quart of *Rheniſh wine*; which being ſeveral times paſſed through a fine ſtrainer, becomes ſo clear, as not to be diſagreeable to the niceſt palate. Four ounces of this infuſion, after it has ſtood ſome days, ſhould ſeem equivalent in virtue to a dram of the bark in ſubſtance; and as it is neither unpalatable, nor lies heavy upon the ſtomach, it may be taken twice as often as any other form of it, till the diſeaſe vaniſhes.

In caſe of vomiting, this muſt be ſtopt before giving the bark.

28. When this diſeaſe has aſſumed no regular appearance, it is ſometimes attended with an almoſt continual vomiting, ſo that the bark cannot be retained in any form; in which caſe the vomiting muſt be ſtopt firſt, before it can be adminiſtered. For this purpoſe I *order a ſcruple of ſalt of wormwood* * to be diſſolved in a ſpoonful of freſh *juice of lemons*, and taken ſix or eight times in the ſpace of two hours; and afterwards I give ſixteen drops of *liquid laudanum* in a ſpoonful of *ſtrong cinnamon water*; and ſoon after, if the vomiting ſtops, the patient muſt begin with the bark.

To be given in a julap to children.

29. *For children*, who, by reaſon of their tender age, can ſcarce bear to take this remedy in any other form, at leaſt in a ſuitable quantity

* *I order a ſcruple of ſalt of wormwood, &c.* This draught will be rendered more efficacious by giving it during the ſtate of fermentation; or if the ſalt is firſt diſſolved in any proper menſtruum, then taken, and the lemon juice immediately afterwards, ſo that fermentation may take place in the ſtomach: exhibited in one of theſe ways, I have ſeen a vomiting very quickly ſtopped, which effect had been tried to be produced in vain, by ſaline draughts taken in the common mode. *W.*

to

to effect a cure, *I generally preſcribe** the following julap:

Take of black-cherry water, and Rheniſh *wine, each two ounces*; Peruvian *bark, finely pow-* The febrifuge julap.

* *For children I generally preſcribe, &c.* See Note *, pag. 92, to which we ſhall add, that as we find *children of all ages*, with reſpect to the refuſal of taking medicines not perfectly agreeable to their taſte, we are happy to have it in our power to ſupply a medicine, from the labours of the indefatigable Dr. Fowler of Stafford, which has been found efficacious in intermittents, that is free from the above inconvenience; he has tried the power of arſenic in theſe caſes, and his endeavours have been crowned with ſucceſs. The Doctor orders, "Arſenic very finely powdered, and "fixed alkaline ſalt, of each ſixty-four grains; diſtilled "water, half a pint: theſe are to be put into a Florence "flaſk, and placed in a ſand heat; the water is then to boil "ſlowly till the arſenic is perfectly diſſolved; when the ſo-"lution is cold, half an ounce of compound ſpirits of la-"vender is to be added, and of diſtilled water another half "pint, more or leſs, ſo that the whole of the ſolution ſhall "yield by meaſure a pint, or rather weigh fifteen ounces "and an half." The Dr. propoſes that the doſes ſhould be, to patients from two to four years of age, from two to four drops; from five to ſeven years, may take from five to ſeven drops; from eight to twelve years, may take from ſeven to ten drops; from thirteen to eighteen and upwards, may take twelve drops as a doſe: to adults, unleſs when ſome directions were given, it was exhibited in a teacup-full of water; to children in the ſame vehicle, but in leſs quantity: when it was adminiſtered three times a day, the hours were ſix o'clock in the morning, two in the afternoon, and ten in the evening; when twice only, the hours were ten in the morning and ten in the evening.

The account of the ſucceſs of this medicine ſtands not alone upon the faith of Dr. Fowler. Dr. Arnold of Leiceſter and Dr. Withering of Birmingham have both tried the powers of arſenic in intermittents; the former ſeldom has known it fail in eighty caſes in which he adminiſtered it; the latter out of forty-eight patients to whom he gave it, cured thirty-three: who alſo adds an account of Mr. J. Free, junior, who had given it to more than a thouſand without hazard or inconvenience. —*See Medical Reports of the effects of Arſenic, by Dr. Fowler.—W.*

dered, three drams; ſyrup of cloves, an ounce: mix them together for a julap. Let the child take a ſpoonful or two every fourth hour (according to his age) till the fits vaniſh, dropping into every other doſe, in a caſe of a looſeneſs, one or two drops of liquid laudanum.

The bark, in *tertians* or *quotidians*, does not always put by the fit the firſt time of taking it.

30. It muſt farther be obſerved, that the intervals between the fits in *tertians* and *quotidians* are ſo ſhort, that there is not ſufficient time to impregnate the blood thoroughly with the febrifuge virtue of the bark; ſo that it is not poſſible that the patient ſhould ſo certainly miſs the next fit the firſt time of taking it, as it commonly happens in a *quartan*; for the medicine in theſe caſes will frequently not perform the expected cure in leſs than two days.

What to be done in caſe of a relapſe.

31. It muſt alſo be noted, that if the patient, notwithſtanding the obſervance of the cautions above delivered, ſhould relapſe, which happens ſeldomer in a *quartan* than in *tertians* or *quotidians*, it will become a prudent phyſician not to adhere too cloſely to the method of giving the bark at the above-mentioned intervals, but to attempt the cure, as his judgement ſhall direct, by ſome other procedure; and here the *bitter decoction* is generally eſteemed a very powerful medicine.

The regimen in intermittents.

32. With reſpect to diet and regimen, the patient muſt be allowed the uſe of all ſorts of ſolid or liquid aliments that agree with his ſtomach; fruit and cold liquors always excepted, becauſe they impoveriſh the maſs of blood, and are very apt to occaſion a relapſe. Let his food therefore be fleſh of eaſy digeſtion, and good juices, and let him uſe wine moderately for his common drink; by the ſole uſe whereof I have

ſome-

ſometimes recovered ſuch habits as have been in a manner fortified by the frequent return of the intermittent againſt the bark, ſo as never to yield to its ſalutary virtue. The patient likewiſe muſt not adviſedly expoſe himſelf to the cold air, till the blood has recovered its former healthy ſtate.

A caution concerning purging.

33. It muſt be noted here, that though, in treating of intermittents heretofore, we recommended due purging after the diſeaſe was gone off, yet this practical caution is only to be underſtood of ſuch intermittents as either went off ſpontaneouſly, or were cured by ſome other medicine and not by the bark. For when the cure is effected by this, cathartics are unneceſſary and hurtful; ſo powerfully does the bark, alone, relieve the fits, and the indiſpoſition they occaſion. Hence therefore all kinds of evacuations muſt be refrained; for the gentleſt purge, nay even a glyſter of *milk* and *ſugar*, will certainly endanger a relapſe, and perhaps re-produce the diſeaſe.

These intermittents had ſymptoms reſembling a true *apoplexy*.

34. And here it is proper to mention, that a very remarkable ſymptom did ſometimes ſucceed theſe intermittents in the firſt years of this conſtitution. For the fits did not begin with chilneſs and ſhivering, which were ſucceeded by a fever; but the patient was ſeized with the ſymptoms of a true *apoplexy*, though in reality, how nearly ſoever it reſembled this diſeaſe, it was nothing more than the effect of the fever's ſeizing the head; as plainly appeared from other ſigns, as well as the colour of the urine, which in *intermittents* is moſtly of a deep red (but not ſo red as in the *jaundice*) and likewiſe lets fall a *lateritious* ſediment. Now though in this caſe

all kinds of evacuations ſeem to be indicated, in order to make a revulſion of the humours from the head, as is generally practiſed in the genuine apoplexy, yet they are to be wholly refrained, becauſe they are very prejudicial in the intermittents, whence this ſymptom originally proceeds, and conſequently endanger life, as I have obſerved. On the contrary, therefore, we muſt wait till the fit goes off ſpontaneouſly, when the bark (in caſe it could not be given ſooner) muſt be immediately exhibited, and carefully repeated in the intervals, till the patient be perfectly recovered.

Aged perſons ſometimes ſeized with a *diabetes*, from ill management.

35. It ſometimes happens, though very rarely, that the aged, after having been long afflicted with this diſeaſe, and weakened by improper bleeding and purging, *are ſeized with a diabetes*,* though

* *Are ſeized with diabetes, &c.* There ſeems at preſent much uncertainty reſpecting this diſeaſe; various are the opinions relative to the proximate cauſe; MEAD conſiders it as an affection of the liver, not of the kidneys; others attribute it to ſpaſms of the ſecretory organs; ſome to a diminution of perſpiration, or the increaſed inhalation. It is generally thought by ſome to deduce its origin from the laxity of the ſecretory organs of the kidneys, or from ſome alteration of theſe organs. Dr. HOME, who has taken ſome pains on this ſubject, and has given two accurate hiſtories of this diſeaſe, with the modes of cure, unſucceſsfully attempted, though the two patients had exhauſted all that experience had ever recommended, and almoſt all that theory could ſuggeſt, conſiders it as ariſing from a defect of the animal or aſſimilatory powers of the conſtitution, by which the aliment is converted into the nature of our body, and defines it, "An increaſed diſcharge of ſweetiſh urine; "perpetual thirſt; a dry, and moſt commonly ſcaly ſkin." Of which he diſtinguiſhes two ſpecies.

1. *Diabetes aquoſa*, when the urine is of a diaphanous watery colour; and,

2. *Lac-*

though the intermittent be perfectly cured. For their blood being by this means so impoverished, as to be utterly unable to assimilate the juices received into the mass, they pass off crude and undigested by the urinary passages, and, in consequence of the large quantity of urine which is voided every time they make water, the strength is gradually impaired, and the substance of the body in a manner washed away. *The indications of cure in this case,** and in every *diabetes*, however occasioned, How cured.

2. *Lactea*, when it is of a milky whiteness; and thinks it is rightly arranged by SAUVAGES in the class of fluxus; but improperly in the order seri-fluxus; as the urine has none of the marks of serum. — *Clinical experiments, &c.*

With respect to the proximate cause, Dr. CULLEN seems to hold the same opinion; for he says, It is owing to some fault in the assimilatory powers, or in those employed in converting alimentary matters into proper animal fluids; but arranges the disease under the order SPASMI, because hardly any secretion can be increased without an increased action of the vessels concerned in it, and some instances of this disease are attended with affections manifestly spasmodic. — *Practice of Physic*, vol. iv. — He defines it; "Most "commonly a preternatural, profuse, and chronical flux of "urine," of which he forms two species;

1. *Diabetes mellitus*; when the urine has the smell, colour, and taste of honey.

2. *Diabetes insipidus*; when the urine is limpid, but not sweet; but is uncertain whether this last may be a species which frequently occurs. — *Synopsis Nosologiæ Methodicæ.* —*W.*

* *The indications of cure, in this case, &c.* From considering the various accounts of this disease it appears obvious, that we must endeavour to prevent the too free secretion of urine by diverting the fluids to the surface, and invigorating the system at the same time. Dr. Brown in his Elementa Medicinæ, when speaking of the diabetes lenior, says, "In this asthenic disease, which is to be called the "milder kind, the urine flows in too great a quantity, but "is not poured forth so copiously as in the severer species

occaſioned, are, (1.) to enrich and ſtrengthen the blood, and (2.) to ſtop the preternatural diſcharge by urine.

For

" of the ſame name, the perſpiratory powers performing " their office languidly.

" To conquer this effect, much more frequent than is be- " lieved, the body is to be ſtimulated by food, generous " liquors, proper exerciſe not too violent, for that is de- " bilitating, nor too indolent, for that ſupplies not a ſuf- " ficient proportion of ſtimulus, and in preference to all " things which reſtrain the flow of urine, none of which " ought to be omitted, perſpiration ſhould be ſupported." —*Elementa Medicinæ.* vol. ii.

Two caſes in the Medical Commentaries are recited of the diabetes ſucceſsfully treated, by the uſe of Dover's powder; in one of which twenty grains was given every night, and that gradually augmented, till in the courſe of three weeks ſeventy grains were adminiſtered; at which period the patient fell into a profuſe ſweat, which continued without intermiſſion for thirty-ſix hours: during that time, he felt himſelf comfortable, made leſs urine, his thirſt abated, and his ſkin came to its natural feel; and in a few weeks was ſo far recovered, that he had in ſome meaſure gained his fleſh though before almoſt worn to a ſkeleton, and his former florid complection: in the other a ſimilar treatment was ſimilarly ſucceſsful.—*Med. Comment.* vol. ix.

One caſe I ſhall mention which fell under my own obſervation ſome years ago; A gentleman in the decline of life was ſeized with a diabetes; he made a large quantity of urine, of a very light amber colour, chiefly in the night, voiding from his time of going to bed till morning, from ſix to eight pints, and ſometimes more; it had ſome very ſlight ſweetneſs; his pulſe was quick, his thirſt very great, and he complained of a ſenſe of weakneſs in his loins; he had always lived a regular life, and much uſed to riding on horſeback; and often viſited the fens of Lincolnſhire and Holderneſſe, where he reſided uſually for ſome time together. He complained alſo at firſt of a load and oppreſſion at his ſtomach, particularly after eating; he was neither corpulent nor otherwiſe, nor ſubject to any particular complaint. At firſt, he took a vomit, which totally relieved his ſtomach; afterwards was put upon a courſe of bark, caſcarilla, and

For inſtance, *Take of* Venice *treacle, an ounce and half; conſerve of orange peel, one ounce;* diaſcordium, *half an ounce; candied ginger and nutmeg, of each three drams:* Gaſcoign's *powder, a dram and half; of the outward bark of pomegranate, the root of* Spaniſh *angelica, red coral prepared, and the troches of* Lemnian *earth, each a dram; bole*-armoniac, *two ſcruples; gum* arabic, *half a dram; ſyrup of dried roſes, enough to make altogether into an electuary: of which let the patient take the quantity of a large nutmeg in the morning, at five in the afternoon, and at bed-time, for the ſpace of a month, drinking after each doſe ſix ſpoonfuls of the following infuſion:* The reſtringent electuary.

and lixivium martis; from theſe he found ſome though ſmall alleviation of his ſymptoms; he rode on horſeback every day, and uſed the fleſh bruſh morning and evening; his diet was of the incraſſating kind, and his chief liquor old port, after dinner; to his victuals, his beverage port and water; as he recovered not from this regimen and medicine, to his mixture was added the tincture of cantharides, twenty drops to each doſe twice a day, which he gradually increaſed to ſixty each time; and by perſiſting in theſe means was ſoon perfectly recovered. I mention this, becauſe in caſes wrapt up in ſo much obſcurity, every trivial hiſtory may ſerve to throw ſome light upon the ſubject; at leaſt where ſucceſs appears to be the reſult of experiment: and I am perſuaded that ſtimulants joined with tonics and aſtringents bid the faireſt for relieving this complaint, when curable: nor do I ſee in all thoſe particulars obſerved with ſuch laudable attention by Dr. Home, that this plan was ever adopted. Nor can we ſay what preciſe limits ſhall be put to the doſes of thoſe medicines, for one conſtitution will often bear double, nay treble the quantity to what is neceſſary for another to produce the full effect; therefore they ſhould be given at firſt in moderate proportions, and puſhed to their utmoſt extent gradatim.

Alum whey; an infuſion of oak bark, in lime water, Briſtol, and chalybeate waters, vitriolum cæruleum, have been by different writers warmly recommended. *W.*

The bitter infuſion.

Take of the roots of elicampane, maſterwort, angelica, and gentian, of each half an ounce; the leaves of Roman *wormwood, white horehound, the leſſer centaury, and calamint, each one handful; juniper berries, an ounce; when theſe ingredients have been ſliced and bruiſed, as they require, pour upon them five pints of canary, and let them ſtand together in a cold infuſion, and ſtrain it as it is uſed.*

The patient's diet ſhould be food of eaſy digeſtion, as veal, mutton, and the like; he muſt forbear garden herbs, and fruits of all kinds, and drink *Spaniſh* wine at meals.

The *fluor albus* cured by nearly the ſame treatment.

36. That obſtinate and laſting diſeaſe, the *fluor albus, may be cured nearly** by the ſame method and

* *The fluor albus.* SAUVAGES arranges this diſorder under the ſame heads as the diabetes. Some ſay, that the diabetes, fluor albus, and hectic fever are of the ſame general kind.

Dr. CULLEN places it under the claſs of pyrexiæ, febrile affections, and makes it the fifth ſpecies of menorrhagia, which he places under the order HEMORRHAGIÆ, names it MENORRHAGIA ALBA, and ſhortly defines it,

"A ſerous menorrhagy without any local injury in women "not pregnant," and ſuppoſes the proximate cauſe a laxity of the extreme veſſels of the uterus, from whence the catamenia are diſcharged; but though the diſcharge may ariſe from thoſe veſſels of ſuch fluids from whence the diſeaſe takes its name now and then; yet it is not alone to them confined, for a number in the vagina pour out ſimilar contents, and equally contribute to conſtitute the complaint. If, therefore, there ſhould be a diſcharge of any fluids not ſanguinary, though obſerving the periods of the menſes, the menſes not appearing, I ſhould conſider it as a *leuchorrea catamenialis*, which ſometimes happens; if it appears indiſcriminately, or conſtantly, a *leuchorrea vera*. It chiefly affects relaxed and delicate conſtitutions, and happens to girls and women of all ages, from three years old to thoſe who have or have not menſtruated, before and after the period

and medicines as the *diabetes* juſt mentioned; for the curative indications in both are the ſame, how much ſoever theſe diſeaſes may ſeem to differ.

period of the menſes; and even to women with child. It obſerves no certain type or period in common; ſometimes flows more copiouſly, ſometimes more ſparingly, ſometimes accompanies the menſes, and ſometimes continues when they have ceaſed. In the beginning it is moſt commonly mild, but in progreſs of time acrimonious and painful, and changes from a white colour to that of a yellow or green caſt, and ſmells offenſive. The beſt mark of diſtinction between this and the blenorrhea virulenta is, that the former is viſcid, the latter thin and ſerous.

HIPPOCRATES has elegantly deſcribed the ſtate of this diſeaſe, when inveterate: "The fluor albus,' ſays he, "is "like the white urine of an aſs, the face becomes tume- "fied, and both parts under the eyes ſwell, and put on "dropſical appearances; the eyes have an unpleaſant "look; the colour of the body is pallid, and the lower "part of the abdomen tumid; the legs ſwell, and retain "the marks made by the fingers on preſſure; there is a "gnawing pain of the ſtomach, whilſt the patient is faſt- "ing, and when ſhe vomits, as if from an acid water. On "aſcending any ſteep place a ſhortneſs of breathing comes "on, a coldneſs of the legs, weakneſs of the knees, the ute- "rus is more than commonly open, and being heavy ſinks "down towards its mouth; ſuch are cured of this diſeaſe "with difficulty."—*Hippocrates de Morb. Mulierum*, lib. ii. ſect. 9.—*W.*

May be cured nearly, &c. The indications of cure here are, to ſtop the leucorrheal flux by giving ſtrength to the uterine and vaginal veſſels, and invigorating the ſyſtem.—The cure is beſt begun by emetics to clear the primæ viæ, and gentle aperients, ſuch as rhubarb and oleum Ricini, which laſt may be occaſionally continued during the courſe of other medicines, which ſhould be of the tonic and ſtimulant claſs, particularly bark, chalybeates, and cantharides; pulvis ſtypticus; frictions applied to the loins, and bliſters; by theſe means I have ſeen numbers cured, who had laboured a long time under this diſeaſe, ariſing apparently from a relaxed ſtate of the veſſels, whoſe habits were becoming cacochymical from the length of its continuance. The diet ſhould be of the agglutinant and nutritious kind; and iſin-

glaſs

differ. But in the cure of the *fluor albus* bleeding muſt be uſed once, and afterwards purging thrice with two ſcruples of the greater *pil. cochia*, before we proceed to ſtrengthening medicines; but no oftener during the whole proceſs, becauſe all kinds of evacuations deſtroy the virtues of ſtrengthening remedies. But this by the way.

The bark beſt alone.

37. And theſe are the obſervations I had to communicate, in a ſummary way, concerning the uſe of the *Peruvian* bark; for my deſign was not to conſult the pomp of medicine. And in reality they who add any thing more to it than a vehicle which is neceſſary to carry it into the ſtomach, in my opinion, either to do it ignorantly, or fraudulently, which every good man muſt needs deteſt, who, as a part of the community, would not be induced to commit ſuch a fraud for his private advantage. As to what remains, if my contemporaries had vouchſafed to conſider what I publiſhed four years ago in my hiſtory of

glaſs diſſolved in milk, or whatever of food kind is adminiſtered in a liquid form; gentle exerciſe and free clear air are neceſſary aſſiſtants; hot rooms and warm liquids ſhould be avoided, and vinous liquors preferred to thoſe which are watery. Diuretics alſo may be exhibited in ſmall doſes, but not to create nauſea or ſickneſs; the beſt of which claſs is dulcified ſpirit of nitre or vitriol. Towards the cloſe of the cure gently aſtringent injections may be thrown up the vagina; the cold bath, *adapted to the ſtrength of the patient*, is alſo beneficial, and courſes of chalybeate waters, as thoſe of Tunbridge, may be perſiſted in for ſome time. Theſe applications properly regulated will be in general ſufficient, where the diſeaſe ariſes from the moſt ſimple cauſe; but ſhould it be induced or ſupported by fungous excreſcences in the uterus, ulcers, ſcirrhus, or carcinomatous affections, we then muſt conſider it as ſymptomatic, and apply ſuch remedies as are adapted to cure or palliate thoſe complaints. *W.*

acute

acute diſeaſes, (which, it is highly probable, I was acquainted with before that time) concerning the method of exhibiting the bark in the intervals of the fit, and the ſucceeding repetition of it, when the diſeaſe is gone off, perhaps the lives of many perſons had been ſaved; how much ſoever ſome men contemned my ſlender endeavours for the public good, and ſlighted the cautions there delivered in the following words, which briefly contain what I have here judged proper to enlarge upon, *viz.*

38. "The greateſt caution muſt be had not to "give it too early, namely, before the diſeaſe "be in ſome meaſure ſpontaneouſly abated; "unleſs the extreme weakneſs of the patient "requires it to be exhibited ſooner; *for the ad-* "*miniſtering it to ſoon* * may render it ineffectual, "and

How to be given.

* *For the adminiſtering it too ſoon, &c.* What Dr. LANGRISH, in his modern Theory and Practice of Phyſic, ſays on this head, with a very ſlight alteration, is in this place applicable; "I have often known fatal effects from exhibiting the *bark* too ſoon, or where there has only been a *remiſſion* of the fever for a few hours, without an abatement of the bad ſymptoms. And indeed, if we conſider that the *viſcera* are loaded with a heavy, pituitous, glutinous matter; that the capillary, ſanguine, and lymphatic arteries are obſtructed, and that neither of theſe impediments are perfectly removed, when there is only a remiſſion of the fever, it will evidently appear, that the adminiſtration of the *bark* muſt neceſſarily be attended with the utmoſt danger; for to conſtringe the veſſels, and to leſſen the diameters of the ſecretory and excretory ducts, can ſeldom be attended with ſucceſs. Add to this, that if there be the leaſt ſuſpicion of an *inflammatory* ſtate of the blood, the *bark* is direct poiſon.

In long continued *agues* or *intermittent fevers*, which have baffled the *bark*, and many other medicines, I have met with more advantages from ſmall doſes of *rhubarb* and *calomel*, than from any other medicines I ever tried.

The

" and even fatal, if a ſudden check ſhould be " hereby given to the vigorous fermentation of " the blood in the act of deſpumation. (2.) " We muſt not order purging, much leſs bleed- " ing, to carry off a part of the febrile matter, " and render the bark more effectual; for " they both weaken the tone of the parts, " whence the diſeaſe returns ſo much the more " ſpeedily and certainly, after the virtue of the " bark is ſpent. It were better, in my opinion, " to impregnate the blood with this medi- " cine by degrees, and at diſtant intervals from " the fit, rather than endeavour to ſtop it at " once, juſt upon its coming; for by theſe " means the bark has more time to produce its " full effect in, and beſides, the miſchief is " avoided that might happen by putting a ſud- " den and unſeaſonable ſtoppage to the imme- " diately approaching fit. (3.) The bark muſt " be repeated at ſhort intervals, that the virtue

The modern practice of joining *rhubarb* with the *bark* is an excellent method in groſs and plethoric habits, or where there is the leaſt ſuſpicion of the *liver*, *ſpleen*, *meſeraic veſſels*, &c. being foulded or obſtructed.

The *cold bath*, where age or no inward weakneſs forbid it, is exceeding proper, eſpecially in the ſummer ſeaſon, to recover the loſt tone of the fibres, and to grind and comminute the viſcid, ill-conditioned juices, and to prevent catching cold.

Van Swieten greatly diſapproves of putting a ſtop to the immediately approaching fit by the *bark*; becauſe by checking the motion, which might otherwiſe remove the obſtruction near the ultimate branches of the arteries, the patient is frequently deſtroyed, of which there are ſome examples: and hence it is that this medicine (which is of its own nature ſalutary) comes to be blamed; whereas in truth the fatal effect ought in all reaſon to be aſcribed to the careleſſneſs of the preſcriber.—*Comment. in Boerh. Aphoriſm.* tom. ii.—*W.*

" of

" of the former dose may not be entirely gone
" off before another be given; and by repeat-
" ing it frequently the disease will at length be
" perfectly cured. These reasons led me to
" prefer the following method of giving it:

" *Take of the* Peruvian *bark, one ounce; syrup* The febri-
" *of roses, two ounces; make an electuary* fuge elec-
" *thereof: take the quantity of a large nut-* tuary.
" *meg, every morning and night, on the*
" *intermediate, or well days, till the whole be*
" *taken; and let it be repeated thrice, inter-*
" *posing a fortnight between each time.*

39. But though the bark is the best medicine hitherto discovered, for the cure of these diseases, yet I have known persons in the prime of life, and of a sanguine constitution, cured of vernal tertians by the following remedies. For instance; let the patient be blooded in the arm on the intermediate day; and some hours afterwards upon the same day, give an emetic of the infusion of *crocus metallorum*, regulating the time in such manner that its operation may be over before the fit comes; and as soon as it is gone off, *let him begin with the following electuary:* * *Vernal tertians*, how cured without the bark.

Take of the extract of wormwood, gentian, and the leſſer centaury, each two drams; mix them together; divide the whole into nine doses, of which let one be taken every fourth hour, drink- The stomachic electuary.

* *Let him begin with the following electuary.* The following bolus has cured some, when every thing else had failed:

Take of the flowers of camomile in powder, half a dram; roch alum, five grains; of the simple syrup, enough to to make them into a bolus, to be taken every three hours in the intermission.

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ing after each doſe, of the bitter decoction without purgatives, and of white wine, each three ounces.

In indigent perſons.

40. There is another method of curing theſe *tertians* in perſons of low circumſtances, who are unable to bear the expence of a long courſe of medicines:

The ſweating draught.

Take of Virginian *ſnake weed, in fine powder, a ſcruple; white wine, three ounces: mix them together. Let the patient take it two hours before the fit comes, and being well covered with cloaths, ſweat three or four hours afterwards, and let it be repeated twice in the ſame manner.*

Intermittents appeared anew in 1679.

41. In the following year, *viz.* 1679, theſe intermittents re-appeared at the beginning of July, and increaſing every day proved very violent and deſtructive in *Auguſt*. But having already treated of theſe at large, I ſhall only obſerve, that they gave way to a new epidemic which proceeded from the manifeſt qualities of the air in *November*.

A cough aroſe in November.

42. For at the beginning of this month a cough aroſe, which was more epidemic than any I had hitherto obſerved; for it ſeized nearly whole families at once. Some required little medicine, but in others the cough occaſioned ſuch violent motion of the lungs, that ſometimes a vomiting and a *vertigo* enſued. On the firſt days of the diſorder, the cough was almoſt dry, and the expectoration not conſiderable, but afterwards the matter in ſome meaſure increaſed. In ſhort, from the ſmallneſs of the expectoration, the violence of the cough and the duration of the coughing

coughing fits, it seemed greatly to resemble the *convulsive hooping cough* of children; only it was not so severe. But it was attended with a fever and its usual concomitants, in which particular it exceeded the convulsion cough, for I never knew that accompanied with those symptoms.

43. Though coughs are common at the beginning of winter, yet every body wondered to find them so very frequent this year; which I conceive proceeded chiefly from this cause: the month of *October* having been wetter than usual, (for it seldom ceased raining) the blood, corresponding with the season, drank in abundance of crude, watery particles, by reason that perspiration was stopt upon the first coming of the cold, whence nature endeavoured to expel them, by means of a cough, through the branches of the pulmonary artery, or, as some will have it, through the glands of the wind-pipe. Whence it affected numbers.

44. When there is occasion for medicine, I am sure the cure is best attempted by evacuation, namely by bleeding and purging; for the redundant serous particles cannot be so commodiously expelled by any other method, as by these two evacuations, which greatly empty the veins. Bleeding and purging serviceable herein.

45. For as to *pectorals*, setting aside their pleasing the patient, I own I do not conceive how they can contribute to remove the cause of the cough; since their whole operation seems to consist, either in thickening the matter when it is too thin to be expectorated, or in attenuating it when, by reason of its viscidity, it comes up with difficulty. This I certainly know, that it is lost time to give such medicines, and that sometimes the blood is so impoverished by the reten- Pectorals useless.

retention of the ſerous particles which are prejudicial to nature, and further that the lungs, irritated by the violence of the cough, are ſo ſhaken by the great and almoſt continual motion, that a conſumption is often occaſioned thereby, from which the patient ſhould be freed by haſtening the cure. Nor are ſudorifics much ſafer; for ſometimes they cauſe a *fever*, and ſometimes alſo the particles of the blood, which are eaſily inflamed, are ſo thrown upon the *pleura*, that a *pleuriſy* is occaſioned, which happened to great numbers in the courſe of this epidemic cough, and was very dangerous.

Sudorifics unſafe.

The cure particularized.

46. Accordingly I took away a moderate quantity of blood from the arm, and applied a ſufficient large and ſtrong bliſter to the neck, in order to make a revulſion of part of the peccant matter. Afterwards I exhibited a lenient cathartic every day, made of an infuſion of *ſena* and *rhubarb*, with *manna*, and *ſolutive ſyrup of roſes*, till the ſymptoms abated conſiderably, or a perfect recovery enſued; or if draughts were diſagreeable, I directed two ſcruples of the greater *pil. cochia*, to be taken every morning at five o'clock, ſleeping upon them.

The *hooping cough* cured by the ſame treatment.

47. By this practice of veneſection and repeated purges, and by this only, is conquered the convulſive or *hooping cough* * in children; an obſti-

* *The hooping cough, &c.* This is acknowledged univerſally to be a convulſive cough, arranged by Dr. Cullen under the claſs, NEUROSES; order, SPASMI; the GENUS, named PERTUSSIS; and conſidered a diſeaſe ariſing in the vital functions, which he conciſely defines,

"A contagious diſeaſe, a convulſive, ſtrangulating "cough, with inſpiration ſonorous and repeated, and often "attended with vomiting."—*Synopſis Noſologiæ Methodicæ*, vol. ii.

It

obſtinate diſorder, which ſcarcely any other method will ſubdue. What the ſkill of others may

It is deſcribed by HOFFMAN in the following manner: This diſeaſe makes its attacks with ſuch extreme violence and with ſo great concuſſion of the whole body, that the miſerable objects appear very often almoſt ſuffocated.—Sometimes, and chiefly in the beginning, the cough is dry; and throws off either none or a very ſmall quantity of thin ſerum, more or leſs acrid; ſometimes it is moiſt, and then a blackiſh or blue mucus, often extremely tenacious, is evacuated, at the ſame time the extremities grow cold; the bowels are coſtive, the urine is thin, and the vital juices are forced up in large quantity and with great force to the ſuperior parts, breaſt, and head; from whence, during the paroxyſm, the face grows turgid with blood, and red; the veins ſwell; the arteries beat ſtronger and quicker; the eyes appear prominent, the tears flow, the eyelids puff up, and ſometimes the blood itſelf, a ſneezing coming on, is forced out from the noſtrils; ſometimes the veſſels of the lungs are ruptured, and there ariſes a ſpitting of blood; a hiccough often accompanies it, and alſo the ſtomach is affected with ſtrong vomitings, by which means the fæces and urine paſs off involuntarily. In ſome, particularly infants, it occaſions ruptures; and *Hippocrates* remarks, Aph. 46. ſect. 6. they become gibbous.—There is a remarkable caſe recited of the dorſal vertebræ being ſeparated by the vehemence of the cough; nor ought we to forget, that from this cauſe apoplexy may ariſe, and that BOYLE has obſerved, from ſuch a cough, a ſudden loſs of memory and the reaſoning faculty, and alſo paralyſis of the hands and other limbs, have originated.—*Medicinæ rationalis Syſtema*, vol. iii. ſect. 2. cap. 3. §. 12.

To which we may add, that there are ſome caſes where this diſeaſe certainly ariſes from this ſpecific contagion, that appears only like a common catarrh; ſtill it is moſt commonly attended with a peculiar kind of ſound, different in different caſes, during ſome parts of the coughing fit, diſtinguiſhed by the term *hooping*, which ariſes in the following manner: "When many expirations have been convul-
"ſively made, and thereby the air is thrown out in great
"quantity by the lungs, a full inſpiration is neceſſarily
"made, which, by the air ruſhing in through the glottis

may effect in this caſe, I am not able to ſay; but know that, for my own part, *I have tried remedies of almoſt every other kind, and tried them in vain.** It muſt be obſerved, that only the milder

"with unuſual velocity, gives that peculiar ſound."—Cullen's *Practice of Phyſic*, vol. iii.

Authors are greatly divided with reſpect to the cauſe and ſeat of this diſorder.

Hoffman ſays, that the material cauſe of this cough reſides in a thin, acrid, and almoſt cauſtic humour depoſited on the ſenſible tunics of the air veſſels, vellicating them greatly; or it may only fix its ſeat on the larynx and aſpera arteria, and then it has for its aſſociate a continued and very troubleſome titillation of the fauces; or it may fall lower on the pulmonary bronchiæ, and the effort of coughing is extremely violent; ſome ſay it is a convulſion of the diaphragm, excited by ſharp humours in the primæ viæ; others, that it proceeds from a diſorder in the ſtomach, or cauſed by tough viſcid matter lodged in its coats. Dr. Butter fixes its ſeat in the inteſtines, from a morbid irritability of the mucus glands, and thinks, that contagious miaſmata are the occaſional cauſe. Dr. Cullen, that it is a ſpecific contagion, having a peculiar determination to the lungs, and producing particular effects there; and beſides the ſymptoms already enumerated, that it is frequently accompanied with febrile affections, ſometimes from the very beginning, but more commonly only after the diſeaſe has continued for ſome time, not appearing under any intermittent form, but with evident exacerbations towards evening, continuing till next morning; and alſo at that time a difficulty of breathing is a frequent concomitant, not only before or after the fits of coughing, but conſtantly preſent, though in different degrees in different perſons: upon the violence and obſtinate continuance of which two ſymptoms the fatality of the diſeaſe chiefly depends, when ſuch is the unhappy termination. *W.*

* *I have tried remedies of almoſt every other kind in vain.* Though Sydenham ſpeaks with ſuch certainty of this mode of cure by bleeding and repeated purging, ſtill experience convinces us it will not always ſucceed. The modern practitioners imitating very wiſely the efforts of nature, as the proximate cauſe of this diſeaſe, ſeems to be wrapt in ſo much

milder cathartics are to be uſed, and theſe given only by ſpoonfuls, with due regard to the age of the patient. Such gentle and gradual evacuations effect the cure, as I imagine, by eaſing the lungs, which though they are not found in this diſtemper to contain much of any ſerous humour, yet are forced into theſe violent fits of coughing, by fervid and ſpirituous vapours thrown upon them, at certain times, by the maſs of blood; and therefore beſt relieved by directing theſe vapours through the lower

much obſcurity, order in the beginning a bleeding or two, and keeping the body open with gentle laxatives; copious bleeding and ſtrong purgatives being prejudicial in general to ſpaſmodic complaints; and as the fits of coughing ceaſe after free expectoration or vomiting, emetics are often repeated, and expectorants, ſuch as full doſes of antimonials, and nauſeating ones, which anſwer theſe intentions, and determine the fluids to the ſurface, hindering, or leſſening at leaſt, pulmonic accumulation; and in order to mitigate the cough, gentle narcotics are now and then exhibited.—Cicuta has been highly recommended, and thought extremely beneficial, begun in doſes of a grain once or twice a day, and gradually increaſed as the patient can bear it. Infuſion of cup moſs, caſtor, bark, and this laſt, joined with paregoric elixir and tincture of cantharides, have each of them been ſeparately extolled. But it is beſt to conſider the cough in two points of view; firſt, as proceeding from the immediate action of contagious miaſmata; ſecond, from the reſult only of habit; and from hence regulate our mode of cure. For the firſt three or four weeks, bleeding, emetics, ſmall doſes of antimonials, and the uſe of cicuta, with occaſional gentle opiates and laxatives, ſhould be adhered to; theſe will prevent miſchief, and weaken the violent effects of miaſmatic action. Afterwards ſtimulants and aſtringents ſhould be adminiſtered; theſe will ſtrengthen the ſyſtem, give tone to the parts already weakened by the repetition of the convulſive ſhocks, and hinder them from being thrown into the ſame ſtate, which they are apt to be, from debility and cuſtom, induced by violence and long continuance of the diſeaſe. *W.*

bowels, and breaking their force by a contrary direction.

Bleeding to precede purging in the beginning of epidemic diſeaſes.

48. But in the firſt ſtage of epidemic diſeaſes, of whatſoever kind they be, great care muſt be had *not to purge before bleeding*.* For the diſeaſes which ariſe from an epidemic conſtitution of the air, are either actually fevers, or upon the leaſt occaſion degenerate into fevers; ſo that a fever may eaſily be cauſed by the diſturbance raiſed in the blood and juices by the mildeſt purgative, and the heat ſucceeding it, which nature had otherwiſe expelled by the uſual evacuations of the morbific matter; as for inſtance, by a *catarrh* or an epidemic cough, of which we now treat, or by a *diarrhœa*, when the epidemic fever has a tendency to that diſcharge. The ſame may be ſaid of any other conſtitution of the air, that diſpoſes the body to ſome peculiar fever, which does not always actually happen, becauſe nature expels the morbific matter from the blood by ſome ſuitable evacuations. This I

* *Not to purge before bleeding, &c.* Our author in various parts of his works lays this down as a rule, ſuppoſing that purgatives always created ſome conſtitutional diſturbance; therefore, to prevent any addition to the febrile commotions already raiſed, or for fear of putting the febrile cauſe in action, he thinks it leſſens the firſt, and abates the prediſpoſition of the habit, ſo that the latter cannot ſo readily exert itſelf. And this reaſoning, probably, he ſupplies in contradiction to the practice of ſome other phyſicians, who were of opinion that bleeding was prejudicial, unleſs the firſt paſſages were previouſly purged, apprehending that the emptied veins might attract the vitiated humours therefrom. However, where bleeding is neceſſary, it ſhould precede the adminiſtration of purgatives, as it greatly contributes in many caſes to aſſiſt their operation, and renders them more effectual in producing their depletory and cooling effects. *W.*

always

always maintain, though the preſent practice is to exhibit cathartics before bleeding, or, which is ſtill more dangerous, without bleeding at all.

49. For though it may be objected, that by bleeding before purging, the foul humours contained in the firſt paſſages are propelled into the empty veins, yet it is moſt certain that the evacuation which precedes bleeding cannot make amends for the injury which the blood receives, from the tumult raiſed therein by the cathartic. And it muſt be owned, that a purge, taken immediately after bleeding, works much more gently, and heats and agitates the blood leſs than it uſually does when exhibited before bleeding; and I am apt to think that numbers, and of children eſpecially, have periſhed for want of knowing this, or through a neglect of it. The reaſons for it.

50. And this I have learnt from a long courſe of experience, which is the ſureſt guide in theſe caſes; and unleſs practice be regulated thereby, it were better to diſcard the art. For the lives of men are but too much triſled with; on the one hand by empirics, who are ignorant of the hiſtory of diſeaſes, and the method of cure, and only provided with receipts; and on the other hand by ſuch idle pretenders, as rely wholly upon theory: whence both together deſtroy greater numbers than the diſeaſes would, if they were left to themſelves. Experience likewiſe in favour of it.

51. But that method of practice, and that only, will relieve the patient, which deduces the indications of cure from the ſymptoms of diſeaſes, and afterwards confirms them by experience; by which means the great *Hippocrates* The cure whereon to be founded.

gained ſuch an extraordinary character. And if the art of medicine had been delivered by any perſon according to this method, though the cure of a diſeaſe or two might have been no ſecret to any of the common people, yet the whole art would then have required more prudent and ſkilful men than it now does, nor would it have loſt any credit thereby. For as the operations of nature, upon the obſervation whereof true practice is founded, are much more ſubtle than thoſe of any art, though eſtabliſhed upon the moſt likely hypotheſis; ſo, of courſe, the ſcience of medicine, which nature teaches, will exceed an ordinary capacity in a much greater degree than that which is taught by philoſophy.

Exemplified in fevers.

52. We have a proof of this in fevers, which conſtitute two parts in three of the employment of phyſicians, and I appeal to any thinking perſon for the truth of what I aſſert. For is there an empiric, though ever ſo illiterate, who will acknowledge himſelf unable to cure a fever, if, according to the general received opinion, only theſe two indications are to be regarded, (1.) to expel the morbific matter by means of ſudorifics, and (2.) to relieve the ſymptoms which ſucceed evacuations of this kind? For he is very ſure that VENICE *treacle*, GASCOIGN'S *powder*, *plague-water*, and the like, given internally, along with a hot regimen, will force ſweat; which is all he propoſes in the cure of this diſeaſe, eſpecially if he has chanced to hear of the term *malignity*. And as to relieving the ſymptoms, *diacodium* is in readineſs to cauſe ſleep, in caſe of watchings and a *glyſter*, when the patient is coſtive, and ſo of the reſt. But he cannot of himſelf diſcover, or judge by his preſcrip-

preſcriptions, what kind of fever it is which he attempts to cure, if we only believe, as poſterity perhaps will, that there are various ſorts of fevers, moſt of which require their peculiar method of cure different from the reſt; and further, that the ſame individual fever, of whatever kind it be, requires one treatment at the beginning, and another ſomewhat different through all its ſtages, as long as it continues.

53. Now if a perſon be ignorant of the natural hiſtory of the diſeaſe, which only can point out the true method of cure, how ſhall he be able to deduce the indications of cure from ſome leſs remarkable ſymptom, when he cannot judge whether it proceeds from his method of cure, or the diſeaſe itſelf; it would take up too much time to enumerate the manifold and minute particulars that muſt be attended to in the cure of this and other diſeaſes, which being ſo numerous, and ſo momentous to the preſervation of the lives of mankind, there will always be room for poſterity to add to thoſe obſervations, wherein the almoſt infinite variety of the operations of nature in the production of diſeaſes, with the indications of cure thence derived, are delivered. Nor will the publiſhing ſuch obſervations at all diminiſh, but rather add to the reputation of the art, which being rendered more difficult, only men of learning and ſound judgement would be eſteemed phyſicians. But theſe particulars by the way.

54. When the above-mentioned *cough* was unſkilfully treated, it cauſed a *fever*, reſembling that which was ſo very epidemic, in the winter of 1675, the hiſtory whereof we have already delivered. But as this *fever* was only a concomitant,

A *fever* aroſe from treating the *cough* unſkilfully, how cured.

mitant, and an effect of the *epidemic cough*, I cured it by the ſame method which I have delivered above for the cure of that *cough*, *viz.* by bleeding, applying an epiſpaſtic to the neck, and afterwards purging thrice. For though no time was fixt for the continuance of purging in a cough unattended with a fever, which, as I obſerved above, is to be continued till the ſymptoms be conſiderably abated, or the patient recovers; yet in the fever proceeding from the cough, purging for three days proved ſufficient to conquer it; as I have frequently obſerved in the conſtitution under conſideration.

Joined at the beginning with *defluxions* upon the *lungs*.

55. But it is to be noted here, that though this *fever* was accompanied with violent *defluxions* upon the *lungs* at the beginning, yet in a month or two afterwards, when the collection of ſerum was gradually expelled from the blood, the fever manifeſtly appeared to be of the ſame kind, though it was unattended with a cough; the blood not having yet recovered its healthy ſtate, ſo that it did not require a different treatment from that which the cough accompanied.

Continued till the beginning of 1680.

56. This fever continued in the above-mentioned manner till the beginning of 1680, when I wrote theſe obſervations; and as the year advanced, intermittents aroſe, which remained without any alteration till the beginning of 1685, when I was preparing the ſecond edition for the preſs. And though they are leſs epidemic in this city now than they were during the firſt four years, and likewiſe milder, yet they rage as violently in other places as they formerly did. For the general conſtitution ſtill favours intermittents ſo much, that I can affirm that I have not hitherto met with a continued

fever,

fever, unleſs it proceeded from wrong management, or was one of theſe *intercurrents*, which generally happens every year: ſo powerfully does this conſtitution tend to produce intermittents. And doubtleſs the force thereof muſt be weakened, before that which I call the *depuratory continued fever* can become epidemic. For in the intermittent ſpecies, nature ſeems to operate with too much haſte and violence, running through the ſtages of concoction and deſpumation of the morbific matter too ſoon; which happens otherwiſe in the depuratory fever, wherein the ſigns of the concoction of the febrile matter to be expelled, ſometimes by ſweat, or rather by a freer perſpiration, do not appear before the *thirteenth* or *fourteenth* day.

57. Theſe particulars being well conſidered, I doubt not that the epidemic *depuratory* fevers of the years 1661, 1662, 1663, and 1664, were only the remains of certain intermittents which had prevailed for a certain courſe of years before; but how long they prevailed I know not. For when the conſtitution which favoured intermittents became milder and declined, the fevers it afterwards generated were more humoral and earthy, whence the depuration of the blood went on by ſlow degrees; whereas thoſe in the firſt years of this conſtitution were produced by more ſubtle principles, and, being intermittents, generally finiſhed their courſe in a little time. Now, allowing this to be the caſe, it ſeems probable to me, that this depuratory fever will return as ſoon as the preſent conſtitution abates a little, and continue for a certain term of years, before the plague ariſes.

The depuratory fevers of 1661, 1662, 1663, and 1664, only the remains of ſome intermittents.

58. But

58. But throughout thoſe years in which this fever ſhall prevail (how many ſoever they may be) intermittents may at times appear, and perhaps prove epidemic for a ſhort ſpace, namely, when ſome manifeſt temperature of the air ſhall contribute thereto. Whether the bark will cure this fever as certainly as it uſually does the preſent reigning intermittents, I cannot ſay; but if it be given in the plague, and the continued epidemics which will regularly follow this, we muſt expect the ſame effects from it, which we now find it produces in the *pleuriſy*, the *peripneumony*, *quinſey*, and the like inflammatory fevers, in which diſorders it not only does no ſervice, but is manifeſtly pernicious. But however this be, epidemics will ſucceed each other hereafter, in the manner above delivered, provided nature does not deviate from the order it hath kept for theſe laſt twenty-four years.—And theſe, Sir, are the principal obſervations I have made of the epidemic diſeaſes of the foregoing years.

The bark, where likely to do miſchief.

59. As to the cure of the *rheumatiſm*, which you likewiſe deſire to be informed of, I have frequently regretted, as well as you, that it could not be accompliſhed without the loſs of a large quantity of blood by repeated bleeding; whereby the ſtrength is not only impaired for a time, but weak perſons are uſually more diſpoſed to other diſeaſes for ſome years; when the matter occaſioning the rheumatiſm afterwards falls upon the lungs, the latent indiſpoſition in the blood being put into action, by taking cold, or ſome other ſlight cauſe. Theſe reaſons induced me to ſearch after ſome other method of curing this diſeaſe, than ſuch repeated bleeding. And having well conſidered, that it ſeemed to proceed

Miſchief of curing the *rheumatiſm* by copious bleeding.

ceed from an inflammation, as appears from the other ſymptoms, but eſpecially from the colour of the blood, which exactly reſembles that of pleuriſies, I judged it might probably be as ſucceſsfully cured by a plain, cooling, and moderately nouriſhing diet, as by repeated bleeding; and the inconveniences likewiſe attending that method avoided. Accordingly I found that a diet of *whey* uſed inſtead of bleeding had the deſired effect. *Whey* advantageouſly uſed in its ſtead.

60. I was called laſt ſummer to Mr. *Malthus*, an apothecary in my neighbourhood, who was afflicted with a ſevere rheumatiſm, accompanied with the following ſymptoms: During the firſt two days he was attacked with a lameneſs in his hip, which was ſucceeded by a dull pain of the lungs, with a difficulty of breathing, which likewiſe went off in two days, then he was ſeized with a violent pain of the head, and ſoon after with a pain of the right hip, which was firſt attacked, and afterwards almoſt all the joints of the arms and legs were affected by turns, according to the nature of the diſeaſe. As he was of a weak and dry conſtitution, I was apprehenſive that by taking away too much blood, his ſtrength, which was already declining, might be quite exhauſted; eſpecially, as the ſummer was ſo far advanced, that it was to be feared that winter would come, before he could recover his ſtrength impaired by frequent bleeding; and therefore I ordered him to live upon whey only for four days, after which I allowed him white bread, beſides the whey, for his common food, namely, once a day, inſtead of a dinner, till he recovered. Contented with this ſlender diet, he perſiſted in it eighteen days, only towards the latter Illuſtrated by a caſe.

latter end I permitted him to eat white bread at ſupper alſo. He drank a gallon of whey every day, which afforded him ſufficient nouriſhment. At the end of this term, when the ſymptoms were gone off, and he got abroad, I allowed him to eat fleſh; as boiled chicken, and other food of eaſy digeſtion. But every third day he lived upon whey only, till at length he recovered, and by this method eſcaped the inconveniences I mentioned above, which had been very troubleſome ten years before, when frequently repeated bleeding was uſed by my order for his cure.

This method not to be contemned for its plainneſs.

61. If any one ſhould lightly eſteem this method, by reaſon of its inelegance and plainneſs, I muſt tell him, that only weak minds ſlight things becauſe they are common and ſimple; and that I am ready to ſerve mankind, even at the expence of my reputation. And I muſt add, that, were it not for the prejudice of the vulgar, *I am certain that this method might be ſuited** to other diſeaſes, which I ſhall not now enumerate.

* *I am certain that this method might be ſuited, &c.* The admirable and approved virtues of *whey* appeared ſo well deſerving notice to Dr. *Hoffman*, that he wrote a diſſertation to recommend it to more general uſe. The ancients, he obſerves, highly eſteemed it, and frequently uſed it in thoſe diſorders which proceed from an acrimony of the juices, as ulcers of the lungs, bladder, and kidneys, the leproſy, various eruptions of the ſkin, ulcerations of the fleſhy parts, and obſtructions of the *viſcera*, &c. They often preſcribed it to be taken in a large quantity, and continued for a conſiderable time; but with this caution and difference, that when only the firſt paſſages required cleanſing, it was to be drank more ſparingly, and only for a few days, but more copiouſly and longer in deeply-rooted and obſtinate diſeaſes.

The

enumerate. And in reality, it would be much more ſerviceable than the pompous garlands of medicines, with which ſuch as are ready to expire are crowned, as if they were to be ſacrificed like beaſts.

62. But that the moſt common things may be ſo ordered by a ſkilful phyſician as to prove preventive of imminent death, will appear from the following obſervation; which, though it has no relation to the diſeaſe under conſideration, is not quite foreign to my purpoſe. About two months ſince a perſon in my neighbourhood deſired me to viſit his ſervant, who had taken a

Its excellency illuſtrated by a parallel inſtance, of a perſon who had ſwallowed poiſon.

The author recommends it in a *hypercatharſis*, whether occaſioned by draſtic purges, or ſome kinds of poiſon, the ſcurvy, all diſeaſes proceeding from, or attended with an acrimony or foulneſs of the juices, hypochondriac and hyſteric complaints, and in the beginning of a dyſentery. He farther tells us, that it is a ſafe and excellent laxative in all kinds of fevers, the ſmall pox, meaſles, and all feveriſh diſorders, exhibited by itſelf, or with *manna*, *ſyrup of rhubarb*, *cream of tartar*, *ſal polychreſticum*, and the like diſſolved therein, as the caſe demands. He adapts the quantity to the circumſtances, directing a pint to be taken at ſeveral times in the morning, by perſons of a weak ſtomach, and a quart by thoſe of a ſtrong conſtitution; and ſometimes repeating it in the afternoon, but in a leſs doſe, and always limiting the time of the courſe to the duration and obſtinacy of the diſeaſe.

He obſerves, that if milk be ſuffered to ſtand till it grows ſour, or its whey be ſeparated by the admixture of an acid, it is much injured thereby, loſes its grateful ſweetneſs, and rather contracts an acidity, which renders it diſagreeable to the human body. To avoid theſe inconveniencies, therefore, he makes a whey in this manner: He evaporates a quantity of new milk, over a gentle fire, to dryneſs, keeping it conſtantly ſtirring, to prevent burning; then pouring as much water to the remainder as there has been milk exhaled, he boils them together for a few minutes, and, laſtly, ſtrains off the liquor for uſe.—*Diſſert. de ſalub. ſer. Lact. virtut. ſparſim.*

large

large quantity of *mercury ſublimate*, being melancholy mad for love, as I afterwards heard. The poiſon had been ſwallowed near an hour when I came, and his mouth and lips were much ſwelled; he was extremely ſick, had a burning pain in the ſtomach, and was almoſt killed with heat. I ordered him to drink three gallons of warm water as quick as poſſible, and to take a large draught of the ſame after each time of vomiting; and as ſoon as it appeared, from the gripings, that the poiſon was going downwards, I likewiſe directed warm water alone, to be plentifully thrown up by way of glyſter, in order to waſh his bowels. The wretch complied, being now very deſirous to live, and drank ſeveral pints of water more than I had directed. He told his friends that were by, that the water which firſt came up was very acrid, by reaſon of its being ſaturated with the poiſonous ſalt; but that it was leſs acrid after every vomiting, till at length it became inſipid, and the gripes that ſucceeded were remedied by injecting water alone, glyſterwiſe. By this ſimple method the patient was recovered in a few hours, only the ſwelling of his lips did not immediately fall, and his mouth remained ulcerated, occaſioned by the particles of the poiſon, which came up with the water by vomiting; but theſe ſymptoms yielded in four days to a milk diet. I preferred water to oil, (which is generally uſed by the unſkilful without ſucceſs) and all other liquors. becauſe being very thin, it ſeemed fitter to abſorb the particles of the poiſonous ſalt, than any other liquor that was thicker, or already impregnated with the particles of ſome other body.

63. But

63. But to return to the *rheumatiſm*: how ſuitable ſoever a milk diet may be to young perſons, and ſuch as have lived temperately and by rule, it is notwithſtanding unſafe to treat the aged in this manner, and ſuch as have long accuſtomed themſelves to too free an uſe of wine and other ſpirituous liquors; for it injures their ſtomachs, and by conſiderably chilling the blood, diſpoſes to a dropſy. In this caſe, therefore, it is highly proper to uſe nearly the ſame method of cure, which I have already delivered; though ſince I wrote that, I have found by experience that it is better after the ſecond, or at moſt the third bleeding, to purge often, till the ſymptoms go off entirely, than to truſt to bleeding only. For purging being an aſſiſtant to bleeding in the cure of this diſeaſe, it will not be neceſſary to loſe ſo much blood; and beſides by this means there will be place left for opiates, which otherwiſe muſt be refrained, how ſevere ſoever the pain might prove, becauſe they fix the diſeaſe, and it does not yield ſo eaſily to bleeding. But the purgatives ſhould be of the milder kind, as *tamarinds*, *ſena*, *rhubarb*, *manna*, *and ſolutive ſyrup of roſes*; for ſuch as are made of *ſcammony*, *jalap*, and the like, occaſion great diſturbance, and increaſe the pain. And every evening after the purge has done working, let an ounce of *diacodium* be given ſomewhat earlier than ordinary.

The aged in a rheumatiſm not to be treated by a milk diet.

64. It muſt be noted here, that during the preſent conſtitution I have met with a certain ſymptom, at one time reſembling the *rheumatiſm*, and at another the *nephritic pain*, in the violent pain in the loins; which, as it uſed to ſucceed intermittents, proceeds from a tranſlation

A remarkable ſymptom accompanying intermittents.

tion of the febrile matter to the muſcular parts of the body. But this diſorder did not require a different treatment from the intermittent which it accompanied; for it is increaſed, and life endangered, by frequent bleeding, and any other evacuation.—I judged it proper to drop this ſhort hint concerning it, that no one might be miſled thereby.

65. To conclude. Theſe, worthy Sir, are the particulars which I have learnt from diligent obſervation, relating to the diſeaſes which are the ſubject of your inquiries; and if they prove acceptable to you, or uſeful to others, I have gained my end; at leaſt I enjoy the ſatisfaction of having done my duty, by complying with your requeſt in the beſt manner I am able, who am ever

Your moſt devoted ſervant,

THO. SYDENHAM.

END OF THE FIRST VOLUME.